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THE TRANSMITTAL OF SCHOLARSHIP BY SCHOLARS IN THREE ACADEMIC DISCIPLINES: REFLECTIONS OF SCIENTIFIC NORMS

The Ohio State University

Ph.D. 1979

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THE TRANSMITTAL OF SCHOLARSHIP BY SCHOLARS IN
THREE ACADEMIC DISCIPLINES:
Reflections of Scientific Norms

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Thomas Sidney Sloane, B.A., M.A.

* * * *

The Ohio State University
1979

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Approved By

Academic Faculty of
Educational Special Services
For my parents, Eleanor and Vance.
ACKNOWLEDGMENTS

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CHAPTER I: INTRODUCTION

Statement of the Problem

It has been suggested by a considerable amount of research that knowledge develops differently depending upon the field of study involved. Furthermore, researchers have suggested that the knowledge growth within a discipline can be understood as a sociological phenomenon—that the communication systems, both formal and informal, within a discipline have a profound impact on how ideas are generated, disseminated, and evaluated.

Students of scholarly behavior have examined components of both the formal and informal communications networks in various disciplines to better gauge the growth of knowledge through scholarly output. Some studies of the formal network have focused on the journal editing process; for example, on how articles are refereed, the criteria and rates of manuscript rejection and acceptance in different fields, and on the roles journal editors and referees play in the accreditation of new knowledge.

Other researchers have concentrated more specifically on the informal communications network. The use of pre-prints,
membership in disciplinary colleague-groups, and how scholars use presentations and learned societies' meetings for the accreditation and distribution of scientific discoveries. It is in this latter realm that Diana Crane (1972) has suggested the existence of "invisible colleges" in scientific fields, colleague-networks that communicate informally through their respective spokespersons.

This study seeks to examine the meaning of scholars' behavior as they transmit new knowledge from the informal sector to the formal medium, i.e., as they submit their manuscripts to a research journal in their respective disciplines. A logical artifact for study is the letter of transmittal or cover letter, which a contributor encloses with his or her manuscript and thereby transmits research to the journal editor. While such correspondences from a contributor to an editor have not previously been examined or used as a data source for research, they could provide an understanding of the process of knowledge accreditation in various disciplines. Jerome Ravetz (1971) defines a research article as a contributor's intellectual property which, if certified from a private channel of communication to a public channel, through publication, cannot only contribute to the knowledge base of a discipline but also, through citation and further verification, accrues interest through a contributor's promotion, tenure, or increased prestige. In such a milieu of exchange from private to public ownership, the transmittal
letter could provide many clues to how a contributor views the contribution, sees the potential use and value of it, and wants the results communicated. From their transfer of ownership, potential contributors may reveal some of the norms that their disciplines espouse in the generation of new and relevant knowledge.

Additionally, the transmittal letter represents a contributor's initial communication with the journal editor. Since blind refereeing— whereby all references to an author's identity are masked from the manuscript— occurs in most journals, it is the transmittal letter with its clues to author affiliation and concerns which, along with the manuscript, impacts upon the editor. The journal editor plays a pivotal role in whether and where a manuscript is sent for refereeing, and in the number of readings it receives and how the critiques are interpreted. The editor is also delegated the task of responding to the author with suggestions for rejection, acceptance, or revision. In such a context, a contributor may suggest possible referees for the research article, or at least request that certain referees not take part in the review process. Since the head editor plays such a pivotal role in the refereeing process, the opportunity exists for the potential author to convey a variety of concerns for the judgment of the manuscript. Indeed, the editors of Philological Quarterly and American Journal of Sociology indicate that they reject 33% and 20%,
respectively, of the articles received without further refereeing. As a result, the initial communication between author and editor may be perceived as crucial, at least by contributors.

The primary question of this dissertation is: what do scholars in three diverse disciplines—sociology, English, and astronomy—reveal about the norms for knowledge development in their respective fields through the way they transmit their research for publication? In relationship to this overall question, three specific sub-questions are posed. First, what do contributors reveal of their disciplines in the ways they refer to themselves? Secondly, what do they reveal of their disciplines in the way they refer to colleagues—either co-authors, sponsors, or others who are related to their contributions? Finally, what disciplinary norms may be inferred from how contributors refer to and elaborate upon their potential publications? The three research journals to be studied are The Astrophysical Journal: Part II (astronomy), The American Journal of Sociology (sociology), and Philological Quarterly (English).

Definition of Terms

For the purposes of this study, the community of scholars for an academic discipline is defined as those researchers who have submitted articles to a "flagship" research journal in their respective fields during the years
1975 and/or 1976. It is assumed that these scholars are a representative scientific community for research activity in their fields because they provide a representative component of information dissemination for the most recent time period available. Whatever statements are made about the comparative norms for research by discipline will be inferred from the study of their correspondence and their reception.

To achieve the most representative and all-encompassing population of scientists for a discipline, it was deemed important to survey only **flagship journals** of research for individual disciplines. A flagship journal is defined as having at least one of the following properties: (1) being one of the two most consulted journals as identified by scientists in that field; (2) being one of the two most subscribed to journals in that field; (3) having sponsorship by the primary academic society in that discipline; and/or (4) having been mentioned in the key bibliographic compilation as one of the foremost research journals for that field. In the case of English, Richard Altick and Andrew Wright's *Selective Bibliography for the Study of English and American Literature* was used to select *PQ*, since there were no studies available of English scholars' readership and journal use. Lewis' study (1975) of three scientific subfields has indicated that paradigmatic development may be less or more advanced within a single discipline; therefore, a study of *American Literature* might give an entirely
different portrait of English community norms than would Victorian Poetry. A more inclusive research journal, for example, would be the Publications of the Modern Language Association or Philological Quarterly.

The transmittal letter, as the artifact for study in this dissertation, is the cover letter which is attached with the manuscript when it is initially submitted to a journal for publication. It is typically addressed to the editor of the journal and may be as short as several lines or as long as several pages. Its purpose is to transmit the research from a private/informal channel of communication to a public/formal domain.

These terms, then, are integral to an understanding of this study. Other terms will be used in specific contexts and will be defined as other authors have defined them (i.e., T.S. Kuhn's paradigm).

Background of the Problem

The communities of scientists and the respective disciplines--English, astronomy, and sociology--were chosen for study to offer contrasting milieux for examining scholarly publishing behavior. Many studies of knowledge development and the publishing process have heretofore found differences in research behavior and norms in the physical sciences, the social sciences, and the humanities. Thus, the design of this study, by choosing the correspondence
from research journals in each of these areas, attempts to validate and further develop distinctions concerning research behavior in divergent knowledge-based fields.

Stephen Toulmin (1972) portrays an evolutionary theory of knowledge creation in distinguishing among compact, diffuse, and would-be disciplines. A compact discipline, such as astronomy, has a disciplinary base of agreed-upon ideas which are, however, continually exposed to critical reappraisal. Toulmin sees such emerging disciplines as sociology evolving toward compactness when they develop collective ideals, better judging mechanisms, and more clearly defined problems. He also points to the importance of well-edited journals with clear criteria for adequacy in the development of a disciplinary knowledge base.

The germ for T.S. Kuhn's *The Structure of Scientific Revolutions* (1962) came from the realization that "somehow, the practice of astronomy, physics, chemistry, or biology normally fails to evoke the controversy over fundamentals that today often seem endemic among, say psychologists or sociologists." Kuhn notes that paradigms--"universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners"--may not function at all in social science disciplines whereas they play a major role in knowledge creation in mature fields such as physics or chemistry.
Another historian of science, Jerome Ravetz (1971), describes fields of study on a continuum from mature to immature, depending upon the absence or presence of facts: "those criteria of adequacy which steer the investigation away from pitfalls." He places such physical sciences as astronomy as "mature" disciplines, whereas a social science such as sociology is termed a "folk science," one with a number of pitfalls for doing research. Ravetz views refereed journals as important archives which mirror the development of a discipline.

Price (1970) studied the recency of works cited in research journal articles in a variety of fields and found that physical science authors cited much more recent studies than did authors in the humanities:

It would seem that this index provides a good diagnostic for the extent to which a subject is attempting, so to speak, to grow from the skin rather than the body. With a low index one has a humanistic type of metabolism in which the scholar has to digest all that has gone before, let it mature gently in the cellar of his wisdom, and then distill forth new words of wisdom about the same sorts of questions. In hard science the positiveness of knowledge and its short-term permanence enable one to move through the packed down past while still a student and then to emerge at the research front where the interaction of one's peers is as important as the storehouse of conventional wisdom. The thinner the skin of science the more orderly and crystalline the growth and the more rapid the process.
Price found that while 66% of all references from a sample of articles in the *Astrophysical Journal* were from the last five years, only 7% of the total references from articles appearing in *Philological Quarterly* were that recent. Thus, scholars in English and astronomy were judged to reflect different norms of knowledge development in those disciplines.

Numerous sociological studies also highlight normative differences by discipline in the way journal articles are refereed and edited. While not focusing on the transmittal of articles for possible publication, these studies do provide illuminating analyses of how contributions are judged and by what criteria of adequacy. Much of the research infers that knowledge is accredited and judged differently in disciplines at various stages of paradigm development. Crane's study (1967) of three social science journals showed that "extrarational" influences upon editors were important determinants for article publication. She found demographic similarities among editors and contributors who were ultimately published in the journals she studied. Similar were the findings of Yoels (1973) and Pfeffer, et al., (1976). Yoels found that the selection of editorial board members and editors was more a function of cognitive and substantive congruency in the social sciences than in the physical sciences; positions of influence were awarded more in the social sciences as a result of similarities between
where editors and their editorial appointees received their doctorates. Pfeffer, et.al., studied journals in chemistry, political science, and sociology and found that where fields lacked paradigmatic consensus, publication decisions were made on more particularistic criteria (as opposed to universalistic, where criteria of adequacy are solely rooted in the norms and knowledge bases of a discipline). Finally, Zuckerman and Merton (1971) examined rejection rates for manuscripts in 83 journals across varying disciplines and found consistently that the social sciences and humanities editors rejected outright considerably more manuscripts than did editors in the more compact, physical sciences fields. This preponderance of "unsalvageable manuscripts" that were not sent to referees led the authors to hypothesize that an ambiguity of standards for adequacy in the humanities and social sciences provided pitfalls to knowledge creation in those fields.

These research studies are important, then, in that they do underscore basic differences, normative differences, in the operation of the professional communication systems in the social sciences, physical sciences, and humanities.

Another dimension of the problem involves the great differences in rejection and acceptance rates by journals in the three disciplines to be studied. Zuckerman and Merton (1971), as previously cited, compared the three disciplines which are the subject of this study and found these
differences in the mean rejection rate for all journals during 1967: English, 86% rejections; sociology, 78%; and physics (astronomy), 24%. Similarly, in interviews with the journal editors involved in this study, the following rejection rates were given to me for 1976: The Astrophysical Journal, 13%; American Journal of Sociology, 92%; and Philological Quarterly, 90%. Despite the use of page charges and nearly double the amount of page space available in the Astrophysical Journal as compared with the other two journals, the rejection statistics may indicate an ambiguity concerning what is adequate and what is inadequate in the disciplinary norms for knowledge accreditation.

These vast differences in rejection rates and in what are considered unsalvageable manuscripts loom as important in the context of this study. How do these disciplinary differences manifest themselves in the contributors' correspondence? In what different ways do contributors transmit their works, in the light of these rejection-acceptance realities which are likely known in broad relief by the members of a field? There may be normative differences by field in how authors justify their research and qualifications for doing that research.

Justification for the Study

It has been shown that past research has indicated that knowledge may develop differently by discipline. Furthermore, the behavior of editors, referees, and editorial board
members has been demonstrated to reflect these normative disciplinary differences. Researchers have suggested that particularistic decision-making occurs more in the social sciences and humanities than in the physical sciences. There have been a variety of studies cited which have linked the knowledge-states, the paradigmatic stages, of fields with the conduct of research in those disciplines. And significant differences have been observed in comparisons of the publishing behaviors of scholars particularly in the social sciences, humanities, and physical sciences. This study, then, grounds itself within the body of research completed already in the sociology of science and the history of ideas; it not only seeks to further test out hypotheses already suggested, but to seek out new dimensions that might better explain the normative influences of the knowledge-states of disciplines on how prospective authors transmit their manuscripts for research journal publication.

Conceptual Framework

An important framework for this dissertation is suggested by two studies completed at The University of Illinois by Anthony J. Biglan (part of the research was also conducted at a small western college). In his first study, Biglan (1973a) surveyed scholars in 36 fields of study in an attempt to gauge the characteristics of subject matter in different academic areas. Fields of study were characterized
by scholars, through whose self-reported traits Biglan was able to trace the cognitive style of various disciplines. He was able to identify three continua that scholars used to depict their fields; scholars viewed their disciplines in varying degrees of paradigmatic structure (from Hard to Soft); in varying degrees of concern with applied problems (from Pure to Applied); and with varying concern for living organisms (from Life to Non-Life). As examples, astronomy was considered to be Hard, Pure, and Non-Life; English as Soft, Pure, and Non-Life; and sociology as Soft, Pure, and Life. Also, Biglan's typology accounted for gradations within these categories, so that sociology, while being categorized as "pure," is not so "pure" as is English.

A second study by Biglan (1973b) utilized the three dimensions previously mentioned to ascertain the scholarly output and social connectedness of scholars at The University of Illinois. Scholars in 47 departments were surveyed as to their social relations and their commitments to research, teaching, and service. Biglan was particularly interested in "whether social connectedness varies with the characteristics of subject matter" and whether there was a relationship between social connectedness and scholarly productivity by discipline. Scholars were surveyed as to the amount of time they spent in research, teaching, and service and for their degree of liking each activity.
Biglan found that scholars in paradigmatically hard areas opposed to soft areas reported greater research collaboration with colleagues and with students. They also tended to publish more articles than monographs, conversely to those scholars in soft areas. These findings led Biglan to hypothesize that "in nonparadigmatic areas, research is more independent and idiosyncratic (cf. the smaller social connectedness on research in soft areas)." As to the finding concerning length of research reports, Biglan notes that: "In the soft areas where paradigms are not characteristic the scholar must describe and justify the assumptions on which his work is based, delimit his method or approach to the problem, and establish criteria for evaluating his own response to the problem. Such an undertaking requires a monograph-length work." Thus paradigmatically hard-area scholars work more collaboratively with colleagues and students and require less explication to describe their research reports than do their counterparts in soft fields.

Applied faculty indicated that they were more service-oriented than those in pure areas. They were also more concerned with the evaluation by others of their research and reported more exogenous influences on their research goals. The non-life/life dimension revealed that in fields that were concerned with life systems, scholars showed less social-connectedness with and influences upon their students.
A follow-up study by Smart and Elton (1975) examined the degree to which department chairmen in the disciplines categorized by Biglan's model placed different amounts of emphasis on eleven departmental goals. Several of their findings include: (1) chairmen in applied as opposed to pure fields of study reported departmental goals less inclined toward research activity and more toward service to organizations within and outside the university; (2) chairmen in hard rather than soft fields reported greater commitment to research goals and less concern with "the organizational climate and the administrative processes of the department"; (3) chairmen in life as opposed to non-life areas reported a stronger service orientation and a secondary emphasis on research productivity. In short, Smart and Elton's study showed a reflection in departmental goals of Biglan's findings that the behavior of scholars differs by the soft-hardness, pure-appliedness, and life-non-lifeness of a discipline.

Another study important in the conceptual framework of this dissertation is by Orr (1970). He examines output functions of scholars—"the purposes scientists seek to serve by their output behavior." He identifies three major purposes for the scholarly contribution of new knowledge: (1) responding, whereby contributors inform the needs of others, react to others' ideas, or report information to meet colleagues' requirements for knowledge (The motivation
here is primarily other-oriented.); (2) requesting, whereby scholars solicit input or debate from others, thereby meeting their own needs for information; and (3) promoting, whereby one is advancing his own ideas, projects, career or reputation (or those of his associates). The latter category is not intended by Orr to be pejorative, only descriptive, and he enumerates five promoting behaviors: (1) proposing, obtaining support from sponsors or colleagues; (2) preempting, establishing a claim for a contribution prior to registration; (3) registering, making a contribution part of the permanent record esteemed by the peer group; (4) reinforcing, improving one's chances of achieving a desired end by citing one's own contributions; and (5) defending, refuting criticism of one's own work. Orr maintains that any of these output activities often serves more than one function. It would be interesting to examine Orr's output functions to see what heuristic properties they provide relative to research already noted in describing the differences of publishing behavior by scholars in fields of study at various stages of knowledge development.

Pilot Study

A pilot research study designed to fathom the fruitfulness of this dissertation area was conducted by me utilizing three journals published by The Ohio State University Press: The Journal of Higher Education (JHE), representing a
soft/life/applied field, the Journal of Money, Credit, and Banking (JMCB), representing a soft/non-life/applied field; and Geographical Analysis (GA), representing a hard/non-life/pure field. (Geography was not included in Biglan's classification.) A sample of submittal letters was taken from the most recent year's file, in most cases, 1974-75.

Following a constant comparative method espoused by Glaser and Strauss (1967), I created several conceptual categories from the transmittal letters which tended to confirm several of Biglan's observations:

COLLABORATION--The hypothesis that faculty in paradigmatically harder fields tend to prefer working with more colleagues and students than their soft-area counterparts was reflected in the pilot study. Sixteen percent of GA contributors and 18\% of JMCB contributors, in comparison to 5\% in JHE, indicated their papers were co-authored. There were also two instances of faculty members recommending their students' manuscripts to the editor of GA. No students submitted manuscripts to JHE, while 4\% did to JMCB and 16\% to GA. These findings reinforce those by Biglan that faculty in non-paradigmatic fields tend to do more idiosyncratic research, having less common ground to create their ideas both with colleagues and students.
CONTEXTUAL ELABORATION—Biglan noted that article-length research was much more prevalent in paradigmatically hard as opposed to soft areas. The hypothesis was predicated upon the assumption that soft-area scholars needed more explication to define the parameters of their research; therefore their output was more likely to be in monograph-length format. It was found that GA letters of transmittal were indeed the shortest in length, and that those submitted to JHE were much more verbose than those for any of the three journals examined. Word counts were done of each letter to achieve a measure for this dimension.

CREDENTIALLING—As an extension of Biglan's finding it was hypothesized that the softer the paradigmatic base of knowledge, the greater would be the necessity for the contributor to credential himself. He might rely more on his own connection to his work or those of his support group rather than allowing the work to be judged on its own qualities. In short, following Orr (1970), transmittal behavior of contributors might be more promoting than informing in softer areas of study. This hypothesis appeared to be borne out in the letters of transmittal which were compared. One measure of credentialling was the mention of an academic or job title either in the signature or body of the letter. This practice occurred in all JHE letters as contrasted to
75% in JMCB, and 65% in GA, the most paradigmatic of the three fields as well as the purest. Other credentialling included mention of mutual acquaintances with the editor, previous publications, and service and organizational accomplishments. Again, this promoting behavior was most prevalent in JHE, lesser in JMCB, and least prevalent in GA.

Questions

From the conceptual framework of research already completed and my own pilot study, the following questions and respective hypotheses are posed for this present study. The major question is: What do scholars in three diverse fields of study--English, sociology, and astronomy--reveal about the comparative norms for knowledge development in their respective disciplines through the way they transmit their scholarship for publication? In relationship to this major question, three specific sub-questions are posed:

Question I. What do contributors reveal of their disciplines in the way they refer to themselves? What references are made either in the body of the letter or in the signature to a contributor's job or academic title? Are there references to previous publications or accomplishments in the letter? In short, are there differences by discipline in the degree of credentialling as well as the specific kind?
Hypothesis I.A.: Credentialing will occur with greater frequency as a function of the softness of a field.\(^1\)

Biglan has indicated that a scholar in a paradigmatically hard area, because of the well-defined parameters for judging research, has little need to "establish criteria for evaluating his own response to the problem." Moreover, the high rejection rates for soft-area fields may necessitate a perceived need on the part of contributors to credential. Also, if Crane (1967), Pfeffer (1976), and Yoels (1973) have found evidence of "extra-rational" and particularistic editorial decisions being made in paradigmatically soft social science areas, might contributors in those fields exhibit a salutory reinforcing behavior ("improving one's chances of achieving a desired end by citing one's own contributions," Orr, 1970)? "Credentialing," for the purpose of this study, refers to all forms of self-promoting behavior by contributors, other than institutional credentialing."

\(^1\) Although none of the fields studied is categorized by Biglan as an applied field per se, it should be noted that each field varies on all three continua as to its degree of hardness, appliedness, or lifeness (thus, sociology is more applied than English).
Hypothesis I.B.: Where credentialling does occur, it should exhibit greater institutional credentialling as a field is "soft" and "life."

"Institutional credentialling" is defined as the mention of one's current academic or organizational title. This measure is taken as an indication of a contributor's identification with his or her parent department or organization. This form of credentialling seems different than citing a list of one's previous research contributions, than that one possesses a Ph.D., or where and with whom one took his or her terminal degree. It belies a more internal rather than external orientation, perhaps a local rather than a cosmopolitan stance (Caplow and McGee, 1958). Smart and Elton (1975) found that soft and life-area department chairmen were oriented more toward the organizational climate and administrative processes of the department. Since sociologists and English scholars represent softer disciplines, their transmittal letters should be more enculturated with credentialling than those of their astronomer counterparts. Sociology letters--due to the life emphasis--should have the most prevalent use of institutional credentialling.
Question II. What do contributors reveal of their disciplines in their colleagues referred to? There might be a variety of reasons for mentioning colleagues in the context of a transmittal letter. When a research article is co-authored, the mention of the co-author's name may occur. When an article is sponsored, the sponsor's name or the name of the individual being sponsored may be present. Sponsorship may take the form of a faculty member supporting a student's research, or collaborating with a student, or a senior faculty member sponsoring a junior member. Collegial relationships may also be alluded to as a form of credentialling or name-dropping. For whatever motivation, the number and kinds of collegial references may be an indication of the social connectedness of scholars transmitting research in various disciplines. Such a measure may also help delineate normative differences by discipline as to the social connectedness of research output and is considered as a separate measure from credentialling.  

Hypothesis II.A.: In a field that is paradigmatically hard, the greater should be the instances of colleagues referred to.

In the context of the transmittal, this measure goes beyond Biglan's and others' research concerning self-stated research preferences of scholars, to actual research behaviors. It also allows for the consideration of those who may have influenced the research but who have not been included in formal credits or as co-authors.
Biglan indicates greater social connectedness among scholars in hard areas as opposed to soft areas: "The paradigm permits greater social connectedness, particularly on their research. The common framework of content and method which it provides for the members of the field means that their attempts to work together will not be hindered by differences in orientation. In non-paradigmatic fields, on the other hand, scholars must work out a common definition of problems and method of approach before they can begin to work together."

Hypothesis II.B.: In a field that is paradigmatically hard and non-life, the greater should be the instances of student sponsorship and collaboration. Biglan notes that social connectedness in hard areas like astronomy involves the enculturation of students into faculty's research efforts: "In non-paradigmatic areas, research is more independent and idiosyncratic.... Thus, the faculty members will have less need for graduate research assistants." By the same token, Biglan reports evidence that while non-life faculty often sponsor students for their first jobs, life-area faculty such as sociologists exhibit little social connectedness with students either in job placement or in dissertation sponsorship. The latter functions in life-area fields are usually performed by departmental committees rather than by individual faculty.
Hypothesis II.C.: In a field that is paradigmatically hard, the greater should be the instances of co-authorship. Since shared paradigms allow scholars to share research endeavors, there should be greater instances of collaborative research efforts in more paradigmatic disciplines. Biglan also observed that scholars in hard areas reported greater collaboration with fellow faculty on research. Therefore, astronomy letters should exhibit co-authorship significantly more than those in English or sociology.

Question III. What disciplinary norms do contributors reveal in how they refer to and elaborate upon their potential publications? Are there differences by discipline in the way contributors refer to their works? Is it important in some fields as contrasted to others to provide an explication of the work, to justify its applicability to the problem-state of the field, or to account for its timeliness? Moreover, do scholars require a variable amount of explication of their research, according to the discipline they represent? Fundamentally, in what manner does contextual elaboration manifest itself?

Hypothesis III.A.: In a paradigmatically hard field of study, the less explication will be required to transmit the research article. Biglan found that hard-area scholars such as astronomers published more article-length research, whereas scholars in soft fields
including English and sociology required monograph-length reports to convey their research. His analysis proceeded that "in soft areas where paradigms are not characteristic the scholar must describe and justify the assumptions on which his work is based, delimit his method or approach to the problem, and establish criteria for evaluating the problem. Such an undertaking requires a monograph-length work." Such verbal behavior may well be the case when articles are transmitted for publication in soft-paradigm fields of study.

**Hypothesis III.B:** In a soft/non-life field of study, contextual elaboration will take the form of a meaning interpretation of the work.

**Hypothesis III.C.:** In a soft-life field of study, the contextual elaboration will take the form of projected utility of the research. Biglan points out that faculty in life fields report the influence of outside agencies on their research:

> It is possible that society has a more immediate and pressing concern for the products of research in these fields; fields such as education and life sciences are more directly relevant to the needs of large numbers of people. Hence, agencies outside the university attempt to shape directly the research being done in these fields.

Argyris (1972), discussing the concept of action research in the social sciences, indicates: "The applicability and utility [my italics] of knowledge are
criteria that should be integrated and given equal potency in the development of behavioral science theories and the execution of such empirical research." Thus, given the life concerns of the field and the consequent need to flesh out the research-context, it may be likely that this elaboration in sociology will take the form of the projected utility of the research article. Conversely, in such soft-non/life areas as English, scholars might concentrate more contextual elaboration on the intrinsic meaning or interpretation of the research problem.

Hypothesis III.D.: In a soft-life area of study, the contextual elaboration will take the form of "fashion" or timeliness. Hagstrom (1965) defines "fashion" as an extrinsic rather than an intrinsic emphasis on doing research: "Scientific disciplines differ in the degree to which fashion plays a role in them. These differences appear to be determined by the ease with which scientists can agree on the importance of goals...When the relative importance of goals is easily obtained by generally accepted criteria...there will be little play of fashion." Hagstrom particularly cites empirical sciences that lack rigorous theories, such as sociology, as being more likely to have fashion in play. What is au courant in the field may be an important justification in a scholar's undertaking a research topic. Fashion
should thus be most prevalent in sociology letters (soft-life), less prevalent in English (soft-non/life), and least prevalent in astronomy (hard-non/life).

**Limitations of the Study**

This study is concerned with gauging the normative behavior of scholars in three fields of study as they transmit their research for publication. Since the data were obtained unobtrusively without either amplification or qualification of the contributors themselves, there are some delimitations concerning the interpretation of the findings.

A term from English literary criticism is called the "intentional fallacy." Thrall, Hibbard, and Holman (1960) define the term as "the error of judging the success and meaning of a work of art by the author's expressed or ostensible intention in producing it (p. 242)." The danger is that the effect of the work or artifact becomes colored either by the researcher's subjective interpretation or by the author's reconstruction of his or her intended meaning. For example, I would presume few journal contributors would allow that mention of their academic title constitutes a form of credentialling; in fact, their behavior in this manner may be entirely by force of habit or unconsciously done. Another explanation may be that their letters were typed by secretaries who again—by force of habit—included an academic or institutional title in the typed signature.
Author "intent," then, is not a concern of my study. What is relevant is the "effect" or "potential effect" of the communication upon the audience for whom it was intended. Edward P. J. Corbett—another literary critic—points to the rhetorical critical mode of analyzing written thought. The researcher carefully examines the artifact itself—the rhetoric, the allusions, the structure of the communication content—and describes the outcome, the impact of the ideas and structure upon the audience (1969, p. xxi). Recognizing that much behavior may not be deliberate or pre-meditated, the researcher thus avoids the "intentional fallacy" by grounding the interpretation in the rhetoric of the artifact, in this case the transmittal letter.

Neither does this dissertation attempt to determine what constitutes an effective or ineffective transmittal letter. Although data have been obtained about what letters accompanied articles that were eventually published or rejected, no attempt has been made to link the transmittal itself to a "cause" for the ultimate fate of the accompanying article. The rejected/accepted dimension is interesting, however, in its fruitfulness for explaining what behaviors may be accounted for by professional and disciplinary enculturation as opposed to amateurism.
Another limitation of the study deals with the sometimes incomplete nature of the data. Many contributors—especially in the field of astronomy—signed their letters with first and middle initials rather than complete given names. Foreign contributors' names were often difficult to translate, as well, into a male-female variable. Thus the male-female variable in transmittal behavior was in some cases confounded by either sketchy or undecipherable data in the signatures. In cases of co-authorship, the names of co-contributors were at times not included; in these cases, the sole indicators may have been the "we" pronoun or carbon-copy references in the enclosure section. Although this gauge represents a weak inductive surmise, it was observed across all three disciplines surveyed. Also, an assumption was made that the contributors studied were representative of English as a humanities, sociology as a social science, and astronomy as a physical science. In a limited number of letters, it was obvious or suggestive (from the departmental letterhead, for example) that there were disciplinary crossovers. An historian may have been submitting to *Philological Quarterly*, a physicist to *Astronomical Journal*, or an economist to *American Sociological Review*. In these cases, contributors who crossed disciplinary boundaries were counted as members of the community of scholars to whom their works were transmitted, both for evaluation and consumption, since: (1) the occurrence of this behavior was infrequent and
happened in all fields studied; and (2) statements about the findings focus on the social and physical sciences and humanities as much as they do on the specific disciplines scrutinized.

In the analysis of the findings for this study, an attempt will be made to discuss the total press of a field of study on contributor behavior in the transmittal of research. Although the paradigmatic structures of disciplines, their knowledge-states, are deemed crucial in making sense of scholarly communication, other influences need consideration. The vast differences in rejection rates for sociology and English journals, as opposed to astronomy, may well create differential evidence of credentialling or contextual elaboration. The size of the scholarly community—astronomy being significantly the smallest—is noteworthy in any interpretation of the results. As well, differences in journal editorial practices—for example, the use of page charges in astronomy, the anonymity of refereeing in sociology—all are potential determinants in how a researcher submits a study for consideration and evaluation. Yet, these environmental pressures do become normative and, although different from the knowledge structure of a discipline, can be accounted for in a comparative analysis of scholarly behavior by field of study.
CHAPTER II: REVIEW OF THE LITERATURE

As far as can be determined, no prior research has been attempted utilizing these particular data sources—transmittal letters from contributors to editors of research journals. From the standpoint of a grounded theory methodology, the use of heretofore unstudied data sources offers a certain advantage: "One strategy for bringing the generation of theory to greater importance is to work in non-traditional areas where there is little or no technical literature. Finding non-traditional areas is also a strategy for escaping the shackles of existing theory and contemporary emphasis (Glaser and Strauss, 1967, p. 38)." Yet, this dissertation does seek to illuminate the comparative research communication behaviors of communities of scholars representing different academic disciplines. There has been abundant research concentrating on the comparative growth of knowledge in different fields of study, differences in research behavior and preferences of scholars in varying fields, and in the contrasting contributions the research journal plays in the accreditation of new knowledge in the social sciences,
physical sciences, and humanities. These studies provide an important preface to the unexamined sources that are the focus of my study: "No sociologist can possibly erase from his mind all the theory he knows before he begins his research. Indeed the trick is to line up what one takes as theoretically possible or probable with what one is finding in the field. Such existing sources of insights are to be cultivated (Glaser and Strauss, p. 253)."

For purposes of organizing the relevant research, the review will preserve the conceptual questions generated in this study and order prior studies of the comparative growth of knowledge in various fields of study as they relate to: The Contributors Themselves, The Contributors and Significant Others, and The Research Artifacts.

The study of intellectual development in fields of inquiry through attention to the social interaction of scholars in those fields is not a new endeavor. Diana Crane (1972) linked the growth of knowledge in fields of study to two types of social interaction groups: collaborators and invisible colleges. Leaders of the invisible colleges provide a communications network for various groups of colleagues, thus sharing new knowledge and insuring for the growth of scientific disciplines. Through more focused specializations, Biglan (1973a and b) studied the social connectedness of scholars by surveying their research behaviors and preferences, how they interacted with both colleagues and
students. He was thus able to relate research behavior to norms for a disciplinary knowledge structure. As another example, Lewis (1975) attempted to "integrate the research on the intellectual structure of science and research on the social structure of groups (p. 1)" in her analysis of researchers in disciplinary sub-fields. There is ample precedent, then, in scrutinizing the behaviors of communities of scholars in order to fathom how knowledge develops and is accredited in different fields of study. This dissertation seeks to illuminate the research norms for the social sciences, humanities, and the physical sciences by surveying the verbal behavior of scholarly communities in sociology, English, and astronomy.

The Research Artifacts

The transmittal letter is in actuality an artifact of the research communication process. As such it functions as the device by which scholars give over their findings to the community of their peers; they thereby subject their ideas to being evaluated among the body of scholars in their disciplines. It has been generally recognized that scholarly research output is more than a mere presentation of data:

A scholarly publication is not a piece of information but an expression of the state of a scholar or a group of scholars at a particular time. We do not, contrary to superstition, publish a fact, a theory, or a finding, but some complex of these. A scientific paper is at the same time more or less than a concept or a datum or an hypothesis. If the paper is an expression of a person or
several persons working at the research front, we can tell something about the relations among the people from the papers themselves (Price, 1970, pp. 6-7).

Hagstrom concurs that scientific "Messages are not objects, rather they are aspects of a process that relates to the formation of consensus and the coordination of human activities...Communication involves the interpretation of the perspectives of different persons (p. 124)." Price (1970) agrees that the literature of the scientist "differs essentially in its social role from that of the non-scientific scholar--it is not just a matter of a different substantive content (p. 3)."

If one recognizes that the medium may be as significant as the content of the message itself (following Marshall McCluhan), then there may be normative differences by discipline in the format or manner of structuring the research report. Whitley (1970) found such differences by sub-field of study as he compared the research in two British sociological journals: "In structured disciplines, even in the comparison here with a disciplinary journal, there should be more emphasis on empirical rather than theoretical studies, since the latter have already been thrashed about and the paradigm has jelled more (p. 144)." Furthermore, the stylistic expectations may be different by field of study. Lineback (1977) notes that humanities journal editors stress that a manuscript be a "significant and original contribution to the
literature" done "in an acceptable and effective manner (p. 130)." Merton (1968), studying publications in the physical sciences, observed a concise style of writing and attributed it to the tendency of laureates to emphasize central notions and play down peripheral ones, thereby highlighting their contributions (p. 61). Biglan's research (1973b) relates stylistic differences in research reporting to the hard-softness of a field of study; hard-area scholars produce shorter reports than soft-area scholars, since the former need less verbiage to describe the context, the parameters of their research--already understood by the audience of their peers. One needs only to recall the economy of diction exercised by Watson and Crick, whose path-breaking announcement of the double helix structure for genetic replication ran a scant 900 words in Nature and understatedly began: "We wish to suggest a structure for the salt of deoxyribose nucleic acid (DNA). This structure has novel features which are of considerable biological interest (Watson, 1968, p. 140)." Finally, Hagstrom (1965) notes that sociology research articles tend to emphasize fashion--an extrinsic rather than intrinsic focus on doing research--because of that discipline's lack of rigorous theories and agreement about temporal perspectives for doing research (p. 181).
Jacob Bronowski, postulates that the language of the scholar in the sciences, humanities, and social sciences mirrors the state of knowledge in those fields (1965). Unlike Toulmin, Bronowski does not see these differences from the standpoint of an evolutionary development of knowledge in fields of study:

Many natural scientists complain that psychology, and other studies of human thought and behavior, lack the rigor of a true science. This is usually excused on the ground that such human studies are young, and have not yet developed the proper formal apparatus by which information can be turned into exact prediction. But I suggest that the logical theorems now show us that this excuse is mistaken. There is an essential difficulty in casting these disciplines into an axiomatic system; they are limited, more severely and more constantly than the natural sciences, by the self-reference that underlies them everywhere (p. 132).

By "self-reference" Bronowski means "the construction of sentences, in thought or in speech, whose range of application includes that very kind of sentence (p. 131)." In literature, this practice is even more prevalent:

In science, the aim is to disentangle each ambiguity, and to force nature to decide between the alternatives by a critical experiment...In literature, the ambiguities are not resolved, and the brain works or plays with the information without ever turning it into a machine instruction (pp. 127-128)...The difference of mode between science and literature reflects the different extent to which self-reference enters their languages (p. 140).
An analysis of the editorial policies and procedures of leading journals in chemistry, physics, sociology, and political science (Beyer, 1976) related the paradigmatic stage of fields to the length and amount of revision for articles submitted. In responses by editors, Beyer found that journals in high-paradigm fields were more likely to accept articles in their initial state of presentation while low-paradigm fields tended to require more revisions (p. 19). A further hypothesis predicated that articles appearing in social sciences journals would be longer than those in the physical sciences journals:

Greater concensus over vocabulary and other symbols decreases the variance of the ways in which a given idea will be expressed. As in other forms of communication where meanings can be agreed upon in advance, codes can be developed in a field with developed paradigms to achieve economy of expression. By contrast, in low-paradigm fields where vocabulary is not always shared, space is consumed in definitions, comparisons, and clarifications relative to similar terms, and in general description and exposition of many aspects of the research (p. 3).

Significant differences by length were found, with chemistry articles showing a mean length of 5.3 pages, whereas sociology (14.9) and political science (14.6) articles were significantly longer (p. 51).

Neumann (1977) studied the format of publication in physical and social sciences. He found that chemists and physicists produced articles with great frequency, while political scientists and sociologists reported research more
frequently in the book genre. He notes that these differences relate to the paradigmatic structure of fields of study:

An article is a relatively short form of scientific communication which assumes a common language and a high consensus about the importance of the problem, the methodology employed, and the interpretation of the findings...Research books represent the opposite case. Here the author has to define the problem to justify its importance, report in detail the methodology of the investigation, and elaborate on the interpretation of the data. (p. 356)

Beyer holds that this latter finding impacts upon the stress for major revision for social science manuscripts and also upon the high rejection rates in those fields. The assumption that social sciences authors are merely poor writers is not accepted; instead, ambiguous research norms are hypothesized to have resulted in more verbose, longer articles, more need for revision, higher rejection rates, and a lack of space available—none of which are characteristic of the physical sciences journal processes. It should be mentioned, however, that greater publication space is available in the physical sciences journals because of the use of page charges to the author.

The Contributors Themselves

What do contributors reveal of their disciplines in the way they refer to themselves? This was one of the questions suggested by a comparative analysis of the data. It is important, then, to examine the research literature which
speaks directly to the motivations of scholars in doing and submitting research reports.

Hagstrom (1965) sees research submittals by individual scholars as an exchange of information for recognition: "Information is a gift that the scientist gives to other scientists in return for which he expects recognition (p. 6)." Such gift-giving accumulates status among peers for the individual benefactor: "In science, the acceptance by scientific journals of contributed manuscripts establishes the donor's status as a scientist--indeed, status as a scientist can be achieved only by such gift-giving--and it assures him of prestige within the scientific community (p. 13)." Optimally, such an exchange of information for recognition binds donors and recipients in a community of values; however, "in science, the failure to recognize discovery may give rise, if not to warfare, at least to strong antagonisms and, at times, to intense controversy (p. 14)."

Hagstrom notes that where anomie is characteristic of a discipline, such as in marginal science: "scientists will adapt to this frustration by ritualism, retreatism, withdrawing from research, or rebelling against the research goals of the specialized community in which they find themselves (p. 235)." He also observes that where fashion guides research, as in the social sciences, the exchange system also falters: "scientists who follow fashions select research problems not for theoretical reasons but because they believe
that solving these problems will bring them rapid recognition (p. 91)."

Zuckerman and Merton (1971) observe this same scientific norm of "free communication through a motivating exchange: open disclosure in exchange for institutionally guaranteed honorific property rights to the new knowledge given to others (p. 70)."

Orr (1970), concerned with the individual motivations of scientists in producing research, has developed a typology of output functions--the purposes scientists seek to serve by their output behavior. He lists the following output functions, noting that any output activity often serves more than one function:

A. **Responding**--serving the needs of others in response to their implied or explicit requests
   1. **Informing**--answering, alerting, advising, teaching, referring
   2. **Reacting**--to others' needs for feedback
   3. **Reporting**--to meet colleagues' requirements for information

B. **Requesting**--to solicit input from others by requests for information aimed at meeting one's own needs

C. **Promoting**--to advance own ideas, projects, career, or reputation (or those of one's associates)
   1. **Proposing**--to obtain support from sponsors or colleagues
   2. **Preempting**--to establish a claim for a contribution prior to registration
   3. **Registering**--to make a contribution part of the permanent record esteemed by one's peer group
4. **Reinforcing**—to improve one's chance of achieving desired end by citing own contributions, employing synopses of one's own work, etc.

5. **Defending**—refuting criticism of one's own work

--- Orr, 1970, p. 157

A preponderance of promoting behaviors has thus led some researchers to the conclusion that "perhaps the most traditional and least successful mechanism for research utilization in education is the professional research journal (Schmuck, 1968, p. 144)." Bhagat (1977) notes that "with high unemployment in the academic job market we are witnessing increased competition among young scholars for jobs and for tenure, and this is manifested in increased pressures to publish (p. 76)." As a partial solution, Bhagat advocates that "the publication of selected articles in the synoptic format would allow a separation of the 'certification' function of journals from the 'dissemination' function. This means that journals would be able to process more articles, and at the same time receive continuing feedback from the sale of individual synoptic articles (p. 77)." Thus the reporting function would be served by longer articles; the promoting function, by synopses.

John Wilkes (1977) has shown that a scholar's academic discipline and his or her cognitive style of doing research may be inter-related. He studied over 250 faculty representing a paradigmatic field (chemistry), a pre-paradigmatic
field (sociology) and a post-paradigmatic field (physics). He found that the problem-solving styles of faculty differed according to the paradigmatic state of their field. There were more Problem-Solvers in chemists, more Problem-Finders in Sociology, and more Integrators in physics:

While "problem solving" ability is important in all sciences, it would not be the fundamental task facing a researcher operating in a pre-paradigm field. Under these conditions the major task facing a researcher is to determine the nature of a problem, and the basis of the researcher's reputation would be an ability to formulate organizing principles, typologies, and perspectives that throw some light on a set of problems (p.3).

He also linked these cognitive-style by discipline traits to publication patterns; especially in pre-paradigm fields like sociology "problem-finders" published later in their careers, since it took extended time to find a research topic.

Furthermore, studies by Biglan (1973b) and Smart and Elton (1975) highlight normative differences in the way scholars accomplish research according to the discipline they work in. Biglan's research showed basic differences in faculty's level of involvement in terms of their relationships with colleagues, scholarly productivity, and commitment to teaching, research, and service; these differences were shown to be related to the hard-softness, life-non/lifeness, or pure-appliedness of the respective disciplines. For example, faculty in soft areas professed liking to work in isolation or relative isolation upon research; this was
attributed to the ambiguity of parameters for doing research in those fields, as compared to hard-paradigm fields. Applied-area scholars were more prone to service roles than those in purer areas. And non-life area scholars (as opposed to life areas) were more actively involved in the mentoring of students and placement of them in the professional workforce. Smart and Elton's follow-up study, using Biglan's classification of departments, examined departmental goals and decision-making. Findings reaffirmed several differences, including: (1) pure faculty emphasized research goals more than service goals; (2) hard-area scholars placed research and instructional goals higher than organizational ones, contrary to those in soft-areas; (3) life as opposed to non-life scholars indicated a strong service (external) orientation as opposed to research emphases (pp. 8-9). The findings of Smart and Elton led them to suggest that the Biglan model "would appear to be appropriate for research related to the manner in which academic departments are organized and administered" and that "the three-dimensional model would reveal broad differences" between departments (p. 13).

Beyer (1976) studied comparative editorial processes in the physical and social sciences and, finding high dissensus and rejection rates in the social science journals, observed:

The burden of high rejection rates fall on all social scientists. Authors know their acceptance rates are low, and will sometimes go to extraordinary attempts to increase probabilities of success. Discreet inquiries and volunteered
remarks by acquaintances in the past have uncovered the following practices: leaving some names out of the acknowledgments so that these persons will not be ruled out as referees; using letterhead from a disciplinary department, rather than an interdisciplinary department to submit the paper where one author holds a joint appointment; using letterhead from the more prestigious department in submitting a jointly-authored article; citing some persons prominently because you want them to referee the article; not citing some persons whom you don't want to referee the article; citing more work from the particular journal to which the article is being submitted than is absolutely necessary; and even resubmitting a rejected article to the same journal with only the title changed and winning acceptance on the second submission (p. 39).

Kohn (1978) satirizes particularistic references by contributors in their articles: "For those beginning their publishing careers it is best to include as many references to their superior's ideas or publications as possible; ditto your referees, if you happen to know who he might be (p. 252)." He indicates that the right choice of title and an erudite style are important keys to publishing success and that the most common reason for publishing is "to improve one's standing in the lab, department, University, research institution, or society at large (p. 252)." Such promoting behaviors on the part of social scientists suggest a concern about particularistic treatment in that discipline, to say the least.

The Contributors and Significant Others

Since research is a social process, this study also seeks to ascertain group relationships and differences in scholarly
behavior according to field of study. As has been previously cited, Crane (1972) recognizes two basic sub-groups within scientific communities: groups of collaborators within specialized areas and leaders of these collaborators who provide linkage communication with other sub-groups to form an "invisible college" (pp. 34-35). Crane holds that "scientific growth is both a social and a cognitive process. Social interaction facilitates the diffusion of ideas that in turn makes possible cumulative growth of knowledge in a research area (p. 26)." Four indicators of the extent of a research area's social organization were determined (p. 41): (1) informal discussions of research; (2) published collaborations; (3) relationships with teachers; (4) influence of colleagues upon selection of research problems and methods. When such a collaborative network is absent, Crane notes that the development of knowledge and research in a field can be inhibited.

A contrary view of differences in collaboration is posited by Price (1970) who asserts that "the amount of collaborative authorship measures no more than the economic value accorded to each field by society. A soft subject highly subsidized would become as collaborative as high energy physics (p. 7)." He cites a study by Hirsh and Singleton (1964) which showed that collaboration was a function of the economic support given authors. Such subsidized collaboration, according to Price, often results in the effect of
"squeezing full papers out of people who only have fractional papers in them at that particular time (p. 7)."

Biglan (1973b) observed the following differences in scholars' social connectedness, relative to his three-dimensional scheme: (1) hard-area scholars reported more collaboration on research with both colleagues and students than did soft-area scholars; (2) life-area, as opposed to non-life, scholars reported more involvement with the direction of student research and their eventual professional development and placement; and (3) applied-area scholars show more exogenous influences upon their research than pure-area scholars. Biglan attributes collaboration extensiveness in the paradigmatically hard areas to the nature of knowledge in those fields; there are common assumptions about the problems to be pursued and the guidelines for conducting research that can be shared by colleagues and by students.

There have been a variety of studies which have used collaboration as a measure of a field’s development and which have found marked differences by fields of study. Hagstrom (1965) cites Berelson's 1960 findings of differences in the percentage of more-than-one-author articles in leading disciplinary journals: physics, 67%; psychology, 47%; and English, 3%. Lewis (1975) used collaboration as a measure of sub-field consensus and found that "because of a shared frame of reference, group members are more likely to be able to work with co-professionals in highly paradigmatic fields (p.10)."
Garvey, Lin, and Nelson (1970) note that social scientists were less prolific than physical scientists in informal communications activities—both written and oral—of eventually printed articles. Whereas 84% of physical scientists in a specific content area were aware of an article before it was published, only 70% of the social scientists were aware. This finding led the authors to hypothesize that the pre-publication network in the social sciences was less effective (p. 71).

Besides the positive effects of an effective communication system, there may as well be negative effects involved in collaborative relationships. Merton (1968) writes of the "Matthew Effect" as being prevalent in the physical sciences: "the accruing of greater increments of recognition for particular scientific contributions to scientists of considerable repute and the withholding of such recognition from scientists who have not yet made their mark (p. 58)." He indicates that in collaborations of high and low-prestige co-authors, the lesser-known author never receives as much credit, even if his name appears first. His research involved interviews with Nobel laureates, who indicated a reluctance to co-author because they felt it diminished the junior contributor's reputation (p. 58).

Others have related the highly effective communications networks of paradigmatically hard fields to heightened competition and conflict. Crane (1972) cites an instance of
this phenomenon: "An informant in a research area in physiology suggested that conflict between groups of collaborators was a characteristic of an area that had been active for a considerable period of time. In the early stages of rapid growth, the productive scientists have not had time to develop sizable groups of colleagues (p. 37)." When Hagstrom (1970) polled scientists concerning how many of them had been anticipated before they completed their work, he found that this occurrence was more true in fields where the number of communications was high. His earlier research (1965) indicated that competition among scientists occurred most frequently when: (1) a great deal of confidence is present in the available research results; (2) there are a large number of scholars working on similar problems; and (3) consensus is high in a field of study (p. 73). He found competition greater among physicists than molecular biologists. Similarly, Chase (1970) expounds that "data can be expected to have a shorter life span in the hard sciences. Thus, the risk of duplicated research is greater, and there is more competition (p. 264)."

An additional group of peers looms as important for the researcher contributing information: those to whom the article is transmitted for evaluation, the editors and referees. Silverman (1976) portrays the editor as pivotal in the research communications process: "The editor not only has influence over what a profession reads but also a more
subtle impact on the direction of a field—by suggesting and enforcing certain methodologies in knowledge creation, rewarding those who are invited to submit papers and choosing referees who judge the work of their peers (p. 40)." He indicates that editors may assume variable importance according to field of study: "The structure of knowledge in physics may entertain few substantive choice points upon which editors may have an impact; such is not the case in the relatively young, changing, and complex field of education (p. 40)."

Crane (1967) studied the academic characteristics of contributors and editors in three social science journals, finding that "the distribution of characteristics such as academic affiliation, doctoral origin and professional age of contributors to scientific journals is similar to the distribution of these same characteristics among journal editors (p. 200)." These findings led her to the conclusion that "extra-rational" decision-making was taking place and that personal connections and methodological biases were coming into play in the editorial judging process. Thus, at least in these social science journals, Crane demonstrated that the academic background of journal editors had a direct effect on what articles were selected for publication.

An additional analysis of editorial perceptions and behaviors in the social and physical sciences was done by
Beyer and Sikorski in 1974, comparing responses by editors in leading journals in political science, sociology, physics, and chemistry. Since they wanted their sample of journals to be equivalent across the scientific fields included in the study, they surveyed only editors of "leading" journals. This determination was based upon a list of best journals nominated by 1164 faculty members from 80 university graduate departments in the U.S. Beyer and Sikorski (1974) were particularly concerned about comparative differences in editorial behavior as they related to the particularistic or universalistic characteristics of the field of study.

"Applied to scientific actors, the question of universalism versus particularism is often a question of whether a given object is being judged in terms of purely scientific criteria, which are universalistically held frames of reference, or in other terms which may have a more idiosyncratic or particularistic frame of reference (p. 5)." On every dimension surveyed, their findings showed that as fields of study were less paradigmatically developed, editorial processes were more particularistic.

In studying both editorial decision-making and editorial review board composition, Beyer and Sikorski found other noteworthy distinctions by stage of paradigm development. In comparison with physics, sociology referees were chosen by editors significantly more because of their institutional affiliation and their status in a professional association (p.17)
As to the decision-making itself, "physical science editors assign less importance to theoretical significance, and to applicability to practical problems in the field, than do social science editors (p. 19)." Also, 90% of the social science editors cited theoretical significance as being important in the publication evaluation of a work; physical sciences editors were much more concerned about replicability than either applicability or theory-soundness. Other differences cited included: significantly more social science research is rejected out-of-hand, without the benefit of any refereeing; anonymity is less valued in the physical than in the social sciences (over 60% of physical science editors gave authors' names to referees; over 20% in the social sciences)(p. 20).

Yoels (1973) also studied editorial board selection in the social sciences and physical sciences. His findings indicated that in social science journals, doctoral origin of appointees was more likely to approximate doctoral origins of their editor-appointers, than in the physical science journals studied. In other words, particularism was more in play in the social sciences:

The findings presented here suggest that the stratification of the social sciences, is primarily a function of an underlying political process in which certain groups are systematically denied information about and access to positions of influence. The existence of such a process in the social sciences is mainly a function of the fact that consensus on basic paradigms does not exist in the social sciences and thus positions
of influence are awarded and achieved on much more 'particularistic' criteria than is the case for the physical and natural sciences (p. 22).

Yoels generalizes this finding to maintain that the entire social science communications and information dissemination network is influenced by informal politics and organizational structure directly related to its lack of paradigmatic sophistication.

In 1967, Crane surveyed 50 professional association journals in seven discipline—including both natural and social sciences—in order to determine the influences of doctoral origin, institutional affiliation, and professional age upon the composition of editorial board members. She compared these dimensions of board members with the same dimensions of contributors to those journals and found some indications that board members prefer the work of contributors who are closer to their own professional age (p. 199). More important, in her examination of the academic characteristics of contributors and editors in three social science journals, she found that the "distribution of characteristics such as academic affiliation, doctoral origin and professional age of contributors...is similar to the distribution of these same characteristics among journal editors. Anonymous evaluation does not change this relationship (p. 200)."
Zuckerman and Merton (1971) surveyed 83 journals in the humanities, social sciences, and physical sciences to fathom the behavior of editors and referees. Their study highlighted the importance of the journal referee as a status judge charged with the quality-control of role-performance within a discipline: "Status-judges are integral to any system of social control through the evaluation of role-performance and the allocation of rewards for that performance. They influence the motivation to maintain or to raise standards of performance (p. 66)." Among the findings were wide variations in rejection rates by discipline, with the physical sciences rejecting approximately one-third fewer manuscripts than humanities referees. In an in-depth study of Physical Review, the researchers found that while in the social sciences and humanities it was the potentially acceptable paper which was problematic, in physics the potentially unacceptable paper was problematic and subjected to more extensive refereeing (p. 92). In studying the relative status of referees and contributors whom they were evaluating, Zuckerman and Merton found no discernible influence of the relative status of referee and author on the evaluation of manuscripts (p. 95). Thus, they noted an even-handed evaluation in Physical Review which was not found in humanities and social sciences referee behavior. Chase (1970) suggests similarly that such particularistic dimensions as similarities in theoretical orientation, mode of expression, and academic training may indeed bias
social science referees toward favorable reaction to research (p. 262).

Whitley (1970) studied refereeing behavior in two British social science journals, one disciplinary sponsored and one interdisciplinary. His data suggested that disciplinary-sponsored refereeing was more efficient, produced less lag-time, and generally afforded greater recognition for referees (p. 255). His study also related referees' professional age or length of time in the field as relevant to effectiveness, suggesting because of their greater experience that these referees were more able to make positive recommendations than younger colleagues (p. 244).

Lindsey (1976) conducted a study of editorial power of referees in sociology, social work, and psychology journals. In his examination of acceptance and rejection decision-making by referees, he describes the process as subjective and not "readily accessible to the techniques of empirical inquiry (p. 17)." Lindsey was particularly interested in editorial power and developed an empirical index to measure an editorial board member's ability to assist manuscripts toward publication (p. 5). In short, how often were referees' decisions to accept an article upheld by the editor-in-chief? Lindsey indicated that his findings show that while scientific achievement is an important prerequisite for being appointed as a referee, it is not particularly relevant in
accounting for the comparative distribution of editorial power among those who do review articles (p. 19). His study was confounded by differences in appointment practices for referees in psychology and sociology journals: "Psychology appears to appoint individuals who are characterized by very high quality work for purposes more concerned with enhancing the prestige of their journal than with attaining their assistance in the review process. Sociology boards do not appear to have adopted this style (p. 18)." Thus, while disciplinary distinction and achievement was more characteristic of referees in psychology journals, these referees were more "figureheads" than their counterpart appointees in sociology and social work.

Finally, Pfeffer (1976), studying journals in chemistry, sociology, and political science, showed that in the social sciences there was a stronger relationship between the composition of editorial boards and the institutional affiliations of authors than was true in the physical sciences. In other words, social science referees tended to function more particularistically, choosing significantly more manuscripts for publication from contributors who had institutional affiliations similar to their own. Pfeffer attributes this behavioral difference to the comparative dissensus of social science fields: "Publications will be perceived more uniformly or will, in fact, be more uniform depending on the degree of paradigm development or consensus in the
Rodman and Mancini (1977) surveyed 33 social science journal editors to determine particularistic influences upon the decisions they made. While editors indicated that particularistic concerns were introduced by contributors, they denied any influence on the decision outcome. Sponsored submissions—Those submitted by a third party for an author of lesser status—had been received by 52% of the editors (p. 371). Most sponsors were colleagues or major professors of the contributor, but could include associate editors of the journal or personal friends of the editor's. "Inside Track" submissions—submissions by contributors with special relationships to the editor—also occurred with frequency. These contributors may have been members of the journal's editorial board, personal friends of the editor, departmental colleagues, or the editor himself. Although editors again reported this behavior having no influence on the decision to publish, 89% of the editors had published colleagues' work, 85% had published the editorial board members' work, and 39% had published their own work in their own journal (p. 372).

"Back region" communication patterns were also noticed. Thirty-four percent of the editors received hidden communications from referees, intended not to be seen by the contributor, at least 50% of the time in considering manuscripts (p. 373). The authors observe that "the latent function of hidden communications can be to provide a subjective forum
for the referee which will influence the editor but which the contributor cannot defend against (p. 373)." Rodman and Mancini noted that survey research may have not been as effective as a study of the communication letters themselves, since questionnaire response by editors concerning favoritism may have been biased by socially desirable ethical norms for "fair treatment."

If the journal referee is "the lynchpin about which the whole business of science is pivoted" and "the imprimatur of scientific authenticity" (Zuckerman and Merton, 1971, p. 66), it is especially important to portray from the literature differences in evaluative behavior which have to do with the knowledge-states of the social sciences, the physical sciences, and the humanities. Letters of transmittal from contributors may well mirror these norms and they also may exhibit significant salutory appeals where particularistic evaluation is perceived to be at play. Pfeffer speculates what possible manifestations may be at work with editorial boards in low-paradigm fields; an editor may publish his referees' works; submitters from the same institutions as referees may submit more to those journals; and editors may equate the quality of a manuscript with the institution represented, providing it corresponds with their own affiliation. As authors present their works for possible publication, how
does the literature above help explain what contributors reveal of their disciplines in their mention of colleagues in the transmittal letter?

**Comparative Growth of Fields of Study**

The history and sociology of science literature provides a rich milieu for any attempt to relate scholars' behavior to the disciplinary norms for research in which they are rooted. Many students of the comparative growth and dissemination of knowledge have studied the scientific publication process as a mirror of how disciplines grow. Such measurements as the recency of citations in published articles, the influence of scholars and groups of scholars in the development of ideas, and the historical reconstruction of new discoveries have been employed in developing theories of how new knowledge emerges in different fields of study.

Stephen Toulmin (1972) sought to develop an "epistemic self-portrait" to explain these normative disciplinary differences (p. 3). His interests were related to how concepts were passed on from generation to generation of researchers, what was the psychological grasp of these concepts, and how were they judged. Seeing scientific "revolution" as a caricature of how knowledge develops, Toulmin portrays the growth of ideas as an evolutionary process: "Instead of a revolutionary account of intellectual change, which sets out to show how entire 'conceptual systems' succeed one another
we therefore need to construct an evolutionary account, which explains how 'conceptual populations' come to be progressively transformed (p. 122)." Toulmin sees scientific concepts, each with a separate geneology, constituting genetic pools within a discipline; thus "every concept is an intellectual micro-institution" which has evolved from its initial state to possible abandonment, to loci of debate, with both abortive and successful variants, to eventual survival (p. 204).

For Toulmin, this evolutionary growth is dependent upon an appropriate forum for both the expression and evaluation of concepts; he views the periodical editor as a "disciplinary filter" who sifts out abortive research from that which will be enculturated professionally, acting as a guardian of the intellectual ideas for that discipline (p. 270). He sees "compact," "diffuse," and "would-be" disciplines reflecting the degree to which ideas are exposed to critical reappraisal by clearly agreed upon collective ideals (p. 379). In portraying social sciences like psychology as "would-be" disciplines because of their lack of well-defined problems and philosophical-methodological rather than empirical arguments, Toulmin posits an optimistic view for their evolution to "compactness," when: (1) professional forums are refined; (2) a set of realistic agreed-upon ideals exists; and (3) judgment of ideas reflects these collective ideals (pp. 379-80).
Thomas Kuhn (1970) was struck by the different process for research in the social and physical sciences when he wrote of scientific revolutions: "Somehow the practice of astronomy, physics, chemistry, or biology normally fails to evoke the controversies over fundamentals that today often seem endemic among, say, psychologists or sociologists (viii)." He attributes the source of this difference to the lack of "paradigms" in the social sciences: "universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners (viii)."

For Kuhn, the bulk of scientific activity in paradigmatic fields is "normal science," "a strenuous and devoted attempt to force nature into the conceptual boxes supplied by professional education (p. 5)." When anomalies are perceived and cannot be reconciled with existing paradigms, there occur shifts of professional commitments which lead to scientific revolutions. The revolutions themselves are seen as "those non-cumulative developmental episodes in which an older paradigm is replaced in whole or part by an incompatible new one (p. 92)." Such a period in the practice of science is one fraught with turmoil within the community, since there is great debate and a characteristic lack of a common terminology to describe the new phenomena. Yet, scientific revolution is significant for the growth of fields of study and cannot proceed except "against the background
provided by the paradigm. The more precise and far-reaching that paradigm is, the more sensitive an indicator it provides of anomaly and hence of an occasion for paradigm change (p. 65)."

Kuhn sees the social sciences as not yet having acquired paradigms, thus being incapable of producing revolution and eventual normative acceptance of new discovery (p. 15): "In the absence of a paradigm or some candidate for paradigm, all of the facts that could pertain to the development of a given science are likely to seem equally relevant. As a result, early fact-gathering is a far more random activity than the one that subsequent scientific development makes familiar." Kuhn also relates the brevity of scientific communication to the paradigmatic development of disciplines. In highly paradigmatic fields, research ideas appear usually as brief articles addressed to professional colleagues whose knowledge of a shared paradigm can be assumed. Books are either relegated to text-books for the novice and student or to "retrospective reflections" upon some aspect of scientific life. Kuhn notes that the scientist in such a field may impair rather than enhance his or her career by book publication: "Only in those fields that still retain the book, with or without the article, as a vehicle for research communication are the lines of professionalization so loosely drawn that the layman may hope to follow progress
by reading the practitioners' original reports (p. 20)."

For Kuhn, science involves puzzle-solving that derives from the existence of agreed-upon norms for research; when anomalies challenge existing norms and are validated, new knowledge through revolution results.

In contrast to Toulmin, Jerome Ravetz (1971) does not view "immature" fields as evolving to "mature" ones. He defines the immature field in terms of the "absence of 'facts,'" resulting from the lack of those appropriate criteria of adequacy which steer the investigation away from pitfalls (p. 5)." A pitfall occurs when a scientist follows an erroneous mode of investigation for an extended amount of time, using great resources, later to find that the results were mistaken (pp. 94-5). It is "the sort of error that destroys the solution of a problem, and nullifies its conclusions about the objects of inquiry (p. 98)."

Ravetz particularly warns of a research trend in immature fields, especially the social sciences, that attempts to slavishly immitate the empirical methodology of more mature disciplines. Since the problems are ill-defined, such empirical attempts at verification do more harm than good. Rather, Ravetz maintains that discovery learning and descriptive research are much more appropriate than model-borrowing and empiricism:
Teaching and learning in an immature field can present more challenge, excitement, and true education than in one where there is an enormous body of standard information and tools to be mastered before the student is accepted as competent to think for himself. For in the absence of a great mass of established doctrine to be imparted, teacher and student can participate in a common search as near-equals, and the teacher's particular role can be Socratic rather than magisterial (p. 380).

Unfortunately, he indicates that such a mode of student-faculty relationship is not extant in immature fields.

The most severe problems with research are created when the methods of immature sciences are used for the study of education, as, for example, when it borrows precepts from sociology or psychology. Such fields Ravetz names as "cliché-sciences" whose graduates "emerge as manpower-units with spurious qualifications for taking their places as technicians, practitioners, or experts in the growing industry of vacuous research or misconceived technical problems (p. 385)." In these fields the value of research is "determined by the degree to which a problem-situation is central to the experience of the audience" rather than for its utility in accomplishing genuine solutions to problems or developing new knowledge (p. 388).

Another way of viewing the comparative growth of fields of study involves attention to the development of knowledge being cumulative as opposed to non-cumulative. Crane (1972) notes a different sequence of social and intellectual events
occurring in the social sciences and humanities, as compared to the natural sciences: "Members fail to agree about the important problems and the methods for solving them and knowledge is not cumulative. Instead of building upon each other's work, they continually dispute each other's theoretical interpretations and empirical findings (p. 85)."

Price (1970) developed an index to measure whether different disciplines grow cumulatively or not; he studied the recency of citations in social science, physical science, and humanities journals and found that paradigmatically hard science fields had a higher percentage of recent citations than either of the other two areas. Since Price's study utilized the three journals whose letters I have sampled, I will repeat his findings here: American Journal of Sociology, 60% of all citations dated within the last 5 years; Astrophysical Journal, 66%; and Philological Quarterly, 7% (pp. 16-17). From these statistics, Price categorizes PQ as archival, AJS as normal, and AJ as research front. His findings also indicated that the PQ journal averaged considerably more references per article than the other two journals. Price explains his index as it relates to the cumulative growth of disciplines:

It would seem that this index provides a good diagnostic for the extent to which a subject is attempting, so to speak, to grow from the skin rather than from the body. With a low index one has a humanistic type of metabolism in which the scholar has to digest all that has gone before,
let it mature gently in the cellar of his wisdom, and then distill forth new words of wisdom about the same sorts of questions. In hard science the positiveness of the knowledge and its short term permanence enable one to move through the packed down past while still a student and then to emerge at the research front where interaction with one's peers is as important as the storehouse of conventional wisdom. The thinner the skin of science the more orderly and crystalline the growth and the more rapid the process (p. 15).

Two studies have examined criteria for evaluation of new knowledge as a mirror for the comparative growth of disciplines. Chase (1970) surveyed 190 natural and social scientists from 16 disciplines and asked them to rate a list of criteria of adequacy for research from "essential" to "not important." Her findings showed differences between natural and social scientists on 7 of her ten criteria:

"Natural scientists placed more emphasis on the qualities of replicability of research techniques, originality, mathematical precision, and coverage of the literature, whereas social scientists gave higher ranking to logical rigor, theoretical significance, and applied significance (p. 263)."

Garvey, Lin, and Nelson (1970) looked at rejection and revision criteria for research contributions in the social sciences and physical sciences, as reported by authors. Their findings showed that rejection in the social sciences was more likely to be on methodological and theoretical grounds rather than because the subject matter was inappropriate or controversial, as was true in the physical
The literature cited is important, then, in that it serves as a foil to my present study of disciplinary norms through scholars' transmittal behavior. There is a variety
of support for the notion that knowledge does accumulate differently in the social sciences, physical sciences, and humanities; as well, it has been shown that scholars have different value systems at work in transmitting research, that they have varying criteria for judging contributions, and that they view colleagues in differing ways. In this study, I intend not to verify prior observations nor to apply proven models in explanation of scholarly behavior; rather, the effect of the transmittal communication is analyzed to generate heuristic categories that pertain to research contributor behavior, behavior that reflects the extant disciplinary norms in the social and physical sciences and the humanities.
CHAPTER III: METHODOLOGY

The archival data—transmittal letters from authors to editors—lend themselves to a "grounded" methodological approach, such as that advocated by Glaser and Strauss where "theory is derived from data and then illustrated by characteristic examples of data (p. 5, 1967)." They suggest alternatives to the delimiting mainstream of verification research, where the researcher follows a methodology of data collection and interpretation based upon refuting or confirming hypotheses. The lack of prior research about the transmittal of research, rich archival and qualitative data, and an intent to develop cogent conceptual categories concerning publishing relationships in various fields of study—all these elements point toward the need for a descriptive approach and a treatment of the data whereby a new heuretic is developed to explain the problem rather than to embroider and embellish an extant theory to fit the data.

Glaser and Strauss indicate, however, that no researcher can begin a study tabula rasa, without any body of theory to guide the study. This dissertation, then, uses grounded

68.
theoretical techniques such as the constant comparative method, theoretical sampling, and quantitative verifications of conceptual categories first generated from the data.

**Content Analysis**

An important methodological approach which is extant in the unobtrusive study of communications is content analysis, "a systematic technique for analyzing message content and message handling--it is a tool for observing and analyzing the overt communications behavior of selected communications (Budd, et. al., p. 2, 1967)." It has often been a tool to "reveal the purposes, motives, and other characteristics of the communications as they are (presumably) 'reflected' in the content (Berelson, p. 18, 1952)."

Content analyses particularly lend themselves to categories of content which were non-conscious to the communicator himself or herself (Budd, et. al., p. 198). Inference is important in the analysis, since the research is dealing with the artifacts of communication rather than the communicators themselves. However, inference error can be reduced by securing data as close as possible to the real categories under study, basing inferences upon solid data from some body of existing theory, and by specifying in detail the chain of inference "from cause to content or from content to consequence (Budd, et. al., pp. 193-194)."
Content analysis methodology facilitates inferences by scrutinizing the source or communicator, the channel or communications medium, and the receiver or audience. The methodology for conducting content analysis upon data bears striking similarities to Glaser and Strauss's "grounded theoretical" approach:

1. Questions are formulated.
2. A sample is selected.
3. Categories are defined from the data.
4. Coding by objective rules is conducted.
5. Comparison scores are derived.
6. And, an interpretation according to relevant theories is made.

--Budd, et. al., p. 6

Conceptual categories are an important prerequisite for content analysis, according to Berelson (p. 147). In some cases an indicator is found in the content and then a category is generated from it: "The hypotheses derive from the nature of the problem and in a sense help refine it. The general categories of analysis are contained in the hypotheses and they in turn are translated into concrete, specific indicators for purposes of the actual analysis (Berelson, p. 164)." Again, similar to Glaser and Strauss, the categories should be exhaustive, mutually exclusive, besides answering the questions originally posed (Budd, et. al., p. 39). The kinds of categories generated may deal with either the form or content of the artifact, including:

1. **values**--what goals people describe, their desire or motives;
2. **traits**--how people self-describe, demographics;
(3) **form of statement**—whether and how language is qualified;
(4) **devices**—what figures of speech and rhetorical devices are used (Budd, *et al*., pp. 150-162).

Both quantitative and qualitative presentations of the findings are utilized in content analysis methodology. Measurements may occur by word or space counts or by the number of instances of a theme or an allusion. Most commonly, the entire communication is the unit of enumeration in content analysis (Berelson, p. 141). In presenting the findings, usually raw numbers, percentages or proportions are utilized: "By and large, however, the numerical results of content analysis are presented in the simplest forms (p. 184)." A more qualitative, descriptive presentation is relevant especially when the "interest of the analyst lies less often in the content as such and more often in other areas to which the content is a cue (p. 124)."

The reliability of one's categories and measurements is important in content analysis. Consistency among analysts is important, and inter-rater reliability tests are recommended, employing more than one coder utilizing the same instructions to classify the data (Budd, *et al*., p. 67). The test-retest mode is advised.

This study, then, combines a content and analytical methodology and presentation of data with the grounded
theoretical approach. In most cases, inferences will be subjected to simple statistical tests, such as chi square. However, when data are continuous—such as in comparative word counts—analyses of variance will be computed. Often, descriptive data will be utilized to represent the findings.

An inter-rater reliability test will be conducted with random samples of 20 letters from each discipline. The rater will be asked to code letters as to their comparative length, use of credentialling, and exhibition of contextual elaboration. Ratings of co-authorship and collaboration will also be tested for inter-rater reliability.

The Sample

Letters were written to editors of "flagship" research journals in the humanities, the social sciences, and the physical sciences. Such journals were selected from lists generated by scholars within that field indicating that these journals were among those most consulted or utilized by the field's scholars. My letter asked each editor for permission to study the letters of transmittal, to travel to the site where the letters were stored, and to copy a sample of the letters from any recent two-year period. Although I promised anonymity be maintained for individual contributors, several editors refused my request because of the sensitivity of the correspondence involved. Several editors were skeptical of the potential fruitfulness of the data:
"I fear that you would find our letters of submittal barren ground for the purposes you have in mind"; (2) "Since its criteria for publication are well-defined, there is no need for an author to explain the ways in which his or her article might be appropriate for the journal." The latter respondent went on to write that "It would not, I'm afraid, be possible for us to allow access to (____'s) files, since much of the material therein is confidential." I was able to secure access to data from three research journals representing the social sciences, physical sciences, and humanities: The American Journal of Sociology (sociology), from Dr. Charles Bidwell, editor; The Astrophysical Journal: Part II (astronomy), from Dr. Helmut Abt, editor; and Philological Quarterly (English), from Dr. William Kupersmith, editor.

Philological Quarterly has no English disciplinary affiliations. It was founded in 1922 at the University of Iowa, where it has remained in affiliation with the School of Letters and is published by the University. It is published four times a year, with approximately 21 articles appearing in that time. The journal is unspecialized, with the exception of one issue per year being composed of solicited contributions in the area of 18th Century English Literature. There is a board of editors, chosen by the editor, who determine journal policy and do manuscript refereeing. Most referees are affiliated with The University of Iowa faculty, and many are not on the editorial board.
Approximately 500 manuscripts are submitted per year, with 90% being rejected. Articles are refereed without anonymity, since the editor indicates that the English scholarly community is so large that particularism is not a concern (Kupersmith, 1977).

The American Journal of Sociology is the oldest extant sociology journal in the world. Having no formal disciplinary association affiliations, it has publishing and editorial policy relationships with The University of Chicago and its press. There is an editorial board composed of faculty in sociology at The University of Chicago. A Consulting Editorial Board has international representation and is appointed by the editor. Refereeing is handled by members of these boards as well as others who do not serve as board members. Approximately 550 new articles are submitted each year, with 92% being rejected—20% without reviewing. Anonymous refereeing is observed, and authors are asked to conceal all self-references in their manuscripts. There exist no page charges, and the readership is 75% composed of members of The American Sociological Association. The editor classifies it as one of the two principal sociological journals in the world (Bidwell, 1977).

Founded in 1895, the Astrophysical Journal was affiliated with The University of Chicago until 1971. At that time, editorial control was assumed by The American Astronomy Association. With editorial offices at The
University of Arizona, AJ is published by The University of Chicago Press. The Journal is subdivided into three parts: Part I (letters), Supplements, and Part II. The letters section publishes shorter, topical reports. The Supplement is intended for lengthier discussions of research. Part II, the journal utilized in this study, publishes all articles which are not lengthy or brief and topical in nature. The editorial board has policy input and is appointed by the AAS, as is the editor. Page charges do exist at the rate of $55 per page. Statistics from 1975 indicate over 1000 submissions a year, with an acceptance rate of 74%. Three hundred and sixteen papers were published during that time frame. Very few manuscripts are rejected without review (only 3 were recalled by the editor), and 600 different referees evaluated work in a year's time. Contributors are split evenly between astronomers and physicists. The editor describes his field of contributors and readership as compact, with only 1000 research astronomers extant in this country. The manuscripts represent a variety of special areas of physical sciences, a mixture of theory and observation, and in a field that is "mutually coherent," the journal has an unspecialized role (Abt, 1977).

In the Autumn of 1977, I travelled to the editorial offices in Tucson, Arizona (AJ), Chicago (AJS), and Iowa City, Iowa (FP), for the purposes of obtaining the data and bringing the letters to Columbus for scrutiny. Following
Glaser and Strauss's notion of theoretical sampling—"the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them (p. 45)"—I was less concerned with the randomness of the sample and more with achieving theoretical saturation, whereby I could accumulate enough data to generate rich conceptual categories that would describe the data. To achieve this saturation and some degree of randomness, I copied usually every third letter from the most recent two years available in the file. All of the journals studied kept separate files of letters according to whether the accompanying manuscript had been accepted or rejected. In all three instances, accepted letters were filed chronologically by the date of publication or scheduled publication for the accompanying manuscript. In English and sociology, rejected manuscript letters were filed alphabetically by author's last name and by year of submission. In astronomy, the rejection file was ordered by date of submission. Depending upon the numbers of letters available, I adjusted the sampling to accommodate an adequate saturation. Some of the on-site coding and analysis of the data revealed the need to copy all of the letters from a category. For example, there were so few letters of rejection for AJ that I found it helpful to copy them all for the time period desired; I saw differences in the letters which related to rejected as opposed to
accepted manuscripts, and I found it desirable also to copy a sample of referees' comments and follow-up correspondence from each of the three journals. I found it also necessary to tape-record interviews with each of the editors as a way of clarifying the data and triangulating on concepts that were arising from the data that I was coding. It is important to point out that the data collection was more than rote collection; as the data accumulated, notes were written on the letters which seemed illustrative and rich for generating conceptual categories. Unusually large files— which indicated more extensive refereeing and often collegial debate— were copied in their entirety. In short, the data collection and the sample were made flexible enough to capture the potential richness and descriptiveness of the data themselves.

The following numbers of letters were collected from each journal's files:

1. AJS (1975, 1976): n = 233; referees comments n = 120.

It is to be emphasized that a question and hypothesis format has been used for two reasons. First, the questions were suggested as I generated conceptual categories using the constant comparative method, i.e. as I coded and
analyzed letters from all three journals. The questions which emerged lend themselves to illustration by example and descriptive elaboration, rather than by quantitative tests. Whenever possible, after the questions were generated, I used the hypothesis format to facilitate what elements of the question might be best illustrated by statistical tests of significance. Since the data are nominal and I am interested in testing the agreement between observed and expected frequencies, I will be using the chi-square statistic to test most hypotheses. Glaser and Strauss (1967) indicate that "since for generating theory we are only looking for general relationships of direction—a positive or negative relation between concepts, and not either precise measurement of each person in the study or exact magnitudes of relationship—it is easier, faster, and considerably more economical to use the crude index (p.191)."

**Quantitative Tests**

**Inter-rater Reliability**

To determine the reliability of the conceptual categories generated through a content analysis of the data, an inter-rater reliability test was done of a sample of letters. Using a random table of numbers, twenty letters were drawn from the total sample of both accepted and rejected letters for each discipline represented; thus, 20 letters from astronomy, 20 from English, and 20 from sociology comprised
the study sample. Mr. Don Peterson, a doctoral student in higher education at The Ohio State University, was selected as the second reader. Mr. Peterson has been familiar with the thesis of my research since the study's inception in 1975 and has had the opportunity to previously peruse the data sources.

The test-retest method was employed: "For the content analyst, the test-retest method requires more than one coder using the same set of instructions to classify the same material. Thus, the method tests the clarity of instructions and definitions and the ability of coders to follow instructions and comprehend definitions (Budd, 1967, p.67)." A written description of the following variables was presented to the second rater: letter length, co-authorship, number of colleagues referred to, credentialling, institutional credentialling, contextual elaboration-meaning, and contextual elaboration-utility (See Appendix A). Using identical definitions of variables and the same set of 60 letters, the second rater and I examined each letter to determine if it either did or did not exhibit an instance of: (1) credentialling, (2) institutional credentialling, (3) co-authorship, (4) contextual elaboration-meaning, and (5) contextual elaboration-utility. For the variables "length" and "colleagues referred to," numerical counts were used by each rater to determine the exact number of colleagues referred to and the actual word count for each letter.
After a preliminary rating conducted by myself and the second rater, a second rating was done using refined category definitions upon the same sample of letters. An inter-rater reliability co-efficient of .80 level of agreement was considered to be satisfactory, since Budd, et al., (1967) cite agreement levels of .60 - .90 as being generally acceptable for content analyses (p. 68).

**Tests of Significance**

Where data are continuous, as in letter length and number of colleagues referred to, analyses of variance are performed using sex, discipline, and rejection/acceptance as dependent variables. It was deemed of importance to ascertain what proportion of variance in length and colleagues referred to could be accounted for by discipline, sex, and rejection/acceptance, as well as by all possible combinations of these variables.

Where the data are nominal—as in co-authorship, credentialling, institutional credentialling, contextual elaboration-meaning, and contextual elaboration-utility—the chi-square test of significance is used, again controlling for discipline, sex, and acceptance/rejection. In all tests of significance, the .01 level was utilized although several findings at the p < .0001 level are reported.
CHAPTER IV: FINDINGS OF THE STUDY

INTRODUCTION

The study of letters of transmittal in sociology, astronomy, and English provided numerous indicators of how scholar-contributors differ normatively by discipline in the ways they present research for evaluation and publication. Through a constant comparative method of data collection of the letters and their content analysis, conceptual categories were developed which elucidate what contributors reveal of themselves, what they reveal of their colleagues and peers, and what they reveal of the research being transmitted.

THE EMERGENCE OF A CATEGORY: A CASE ILLUSTRATION

As a means of explaining the method of content analysis employed and of how categories were formulated, the instance of one conceptual category’s evolution is presented, that of "credentialling." Questions that were inherent in prior research on publishing and editorial
processes—studies by Biglan, Crane, Zuckerman and Merton, and Beyer, as examples—were instrumental in the choice of material for research. The questions raised spoke to differences by academic discipline in the judgment of research, relating those dissimilarities to the paradigmatic characteristics of fields of study. In addition, my prior contact with two journal editors—Dr. R. J. Silverman of the Journal of Higher Education and Mr. John Stasny of Victorian Poetry—was an important stimulus in guiding the focus of this study to the transmittal letter itself. Dr. Silverman suggested these data sources as being potentially fruitful in any study of the scholarly behavior of higher education contributors. Mr. Stasny's views were contrary; his feelings were that English scholars revealed little about themselves or their discipline in the rite of transmittal. Thus were provided the germs of a puzzle.

The initial analysis of letters of transmittal was done with a sample of letters from the files of the Journal of Higher Education. Upon examining these 50 or so letters, certain content indicators seemed recurrent; contributors did elaborate about the necessity for and meaning of their research, about the influence of and their relationships to other scholars in the field, and about their own qualifications and motivations for undertaking the particular research. The latter behavior occurred in over 80% of the letters and in a variety of ways. Qualifications may have
been in the body of the letter, in a post-script, or in the signature. They consisted of allusions to prior work done on the subject; of contributors' status within their institutions; of the favorable evaluation of the research by colleagues and sponsors; or of their professional and disciplinary accomplishments. That establishing one's own connections to one's research was a given in JHE transmittal letters; a further consideration became relevant: did scholars in other academic areas transmit research exhibiting these same or different concerns?

Two additional research journals representing economics (Journal of Money, Credit, and Banking) and geography (Geographical Analysis) were feasible for a comparative pilot study, since both were housed at The Ohio State University Press. Samples of letters were obtained by permission of those editors, and comparisons were made of transmittal letter content from all three areas. New indicators emerged, such as concerns about time-lag for publication and mentor-student relationships; moreover fewer instances of "credentialling" indicators were observed, in a contributor's delineating his or her connections to and qualifications for doing the research being submitted. This behavior occurred most in JHE, less in JMCB, and least in GA letters. These findings seemed to be consistent with other research that had related particularistic concerns, exogenous to the research itself, to the paradigmatic
softness of a discipline. More important, credentialling became important as a means for the exegesis of the comparative disciplinary research behavior of scholars.

There were still important questions to be asked. Since all fields in the preliminary study were social sciences, would credentialling explain as inclusively the content of letters in physical science and humanities fields? Would new kinds of credentialling be observed? Or would a more comprehensive survey of the data sources tend to indicate that credentialling was a function of something other than discipline, perhaps sex or academic rank or amateurism of the contributor submitting the research?

Three research journals were selected for study, each representative of a social science, a humanities, and a physical science discipline. An attempt was made to control the selection of journals as to their reputations. The Astrophysical Journal and The American Journal of Sociology were both listed by Lodahl and Gordon (1972) as one of the ten most important journals by scientists in those fields; Philological Quarterly was consistently listed in bibliographic guides in English as being a prestigious, "flagship" research journal. Too, the journals were unspecialized enough that the contributors represented would not reflect sub-fields and would provide a spectrum representative of scholars for the discipline in its entirety. (Thus, Victorian Poetry would not have been eclectic enough to
represent scholars in the discipline of English.) Additionally, both rejected and accepted manuscript transmittal letters were sampled. In content analysis, for the development of meaningful explanatory categories such as credentialling, differences in the study groups need to be maximized; these journals offered data sources that were less homogeneous than the three social science journals of the pilot study.

As letters were collected and coded from the three journal sources, credentialling assumed increasing importance as an indicator of differences in scholarly transmittal by discipline. Since over 900 total letters were sampled from the most recent two-year period available, there was ample "saturation" for the category (Glaser and Strauss, 1967). It became necessary to differentiate among kinds of credentialling behavior. For example, although astronomers credentialled very little, it was most often present as sponsorship—a senior colleague submitting work for a junior colleague or student—or as name-dropping, citing a colleague who favorably evaluated the research and recommended its submission.

Credentialling was rampant among contributors in sociology and English, in comparison, but so diverse that additional sub-categories needed to be developed for explication. Sociologists stressed institutional affiliations as credence for submitting work, i.e., "Associate Professor
of Sociology" or "Department Head." Thus, "institutional credentialling" was relevant as a sub-category distinguishing a special form of self-promoting behavior.

English scholars often cited past publications in the subject area as precedent for current involvement, often as justification for submitting the research for evaluation. It was not unusual for scholars in this group to attach a vita of books or articles published; the assumption was that "the past as precedent" laid claim to present and future research endeavors.

Still another facet of the credentialling process was termed "reverse credentialling." As letters were analyzed, a number of contributors were observed to reiterate their prior lack of success with the manuscript being submitted. In some cases, unfavorable yet encouraging referees' comments were included from other journals. This self-effacing contributor style was coupled with an appeal for consideration as a "last ditch effort."

This case illustration traces the development of just one conceptual category. Credentialling was a particularly valuable area of analysis and offered a variety of stances from which to observe differences in self-references by scholars in the three disciplines being researched. While some statistical verification of this category's explanatory relevance was necessary, the findings lend themselves much more to a presentation by case instances, illustrative
quotations from the letters themselves. Several other conceptual categories were more attuned to a primarily statistical treatment and portrayal of the observations.

CONCEPTUAL CATEGORIES

Already mentioned as a case illustration, credentialling appeared especially illuminating in describing differences by discipline in scholars' transmittal of research. The category is characteristic of self-promoting behavior by contributors, and consists of: (1) references to one's terminal degree, where it was obtained and under whose tutelage; (2) self-evaluation of one's contribution; (3) name-dropping of colleagues, sponsors, or mutual acquaintances of the editor; (4) past achievements, accomplishments, or publications; (5) personal comments and appeals to the editor; (6) reverse credentialling or self-effacing references; and (7) any combination of the above elements that are external to a discussion of the research itself.

Institutional credentialling is the category that indicates a contributor's specific relationship to his or her institution, most often the mention of an institutional title in the signature of the letter. One's academic rank--"assistant professor"--or one's departmental status--"department chairperson"--are specific indicators here.
The number of colleagues referred to was deemed important as a way of fathoming research networks for scholars submitting research. What significant others are cited as having influenced the work? Are specific co-authors, sponsors, suggested referees referred to? In short, this category illuminates all references to colleagues mentioned in the letters of transmittal and was found to especially cogent as a way of portraying divergent submittal patterns in the three fields of study.

Co-authorship was also observed to be a distinguishing framework within which to see disciplinary differences in submissions. Co-authorship may have been indicated in the letter's signature, within the body of the letter, or in self-references as "we."

Two forms of contextual elaboration—description of the research project itself—were observed. Meaning elaboration occurred with great frequency in English letters; the nature of the problem, its intrinsic characteristics, a clarification of the meaning of the study—all typify contributors' explication in this case. Conversely, utility elaboration was most representative of sociologists. The timeliness of research may have been specified or its potential utility for other scholars, for practitioners, or journal readers. Too, the work's relevance to the state of research in the discipline may have been expounded upon.
The length of the transmittal letter, although not a conceptual category, proved to be a significant indicator of differences by discipline in the transmittal of research reports. Length of letter, in one respect, is a reflection of the amount of all of the above behaviors being present.

INTER-RATER RELIABILITY RESULTS

The reliability of conceptual categories is prerequisite to their generalizability. For any artificial constructs such as these categories to be effective in illuminating differences in scholarly behavior, the definitions of the categories and indicators need to be understandable and observable by others. A second rater was asked to rate 20 randomly selected letters from each discipline according to a set of instructions provided him; this researcher (myself) rated the same group of letters to determine the reliability of the above categories and indicator, using the same set of instructions. Two ratings were conducted, with revised definitions of categories and instructions being incorporated for the final rating, again using the same total of 60 letters (See Appendix A). Thus, the test-retest method of gauging category reliability was used.

Using the final rating scores, Pearson product-moment correlations were computed for each category and rater agreements were determined.
TABLE 1. INTER-RATER RELIABILITY AGREEMENT

<table>
<thead>
<tr>
<th>Category</th>
<th>Correlation</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Length</td>
<td>r = +.997a</td>
<td></td>
</tr>
<tr>
<td>Credentialling</td>
<td>r = +1.000a</td>
<td></td>
</tr>
<tr>
<td>Institutional Credentialling</td>
<td>r = +1.000a</td>
<td></td>
</tr>
<tr>
<td>Colleagues Referred To</td>
<td>r = +.990a</td>
<td></td>
</tr>
<tr>
<td>Co-authorship</td>
<td>r = +.918a</td>
<td></td>
</tr>
<tr>
<td>Utility Elaboration</td>
<td>r = +.574</td>
<td></td>
</tr>
<tr>
<td>Meaning Elaboration</td>
<td>r = +.798</td>
<td></td>
</tr>
</tbody>
</table>

Defined as significant at \( r = +.80 \)

Agreement correlations of .80 and above were considered appropriate for category reliability in this study (Budd, et al., 1967, cite instances of content analyses \( r \)'s from +.60 to +.90 having been considered acceptable in prior research). The elaboration category, especially when utility was being ascertained, was least reliable as an indicator. Reliability was much greater that contextual elaboration existed; identifying which type was represented offered the difficulty. Also, since the sample showed such few instances of this indicator occurring (11 times in 60 letters), the statistic of actual agreement by raters was distorted. Actual inter-rater agreement occurred for 54/60 letters for Utility Elaboration and for 55/60 letters on Meaning Elaboration. Thus, the category was retained for the presentation of findings.
The conceptual categories and findings of the study that follow are organized as they relate to the basic questions of this dissertation: what scholars reveal of their disciplines by their self-references, by their references to significant others, and in explication of the research being submitted. Wherever pertinent, results of the tests of the hypotheses presented in Chapter I will be presented.

I. WHAT CONTRIBUTORS REVEAL OF THEIR DISCIPLINES BY SELF-REFERENCE

I.A. Credentialling

Credentialling—that self-promoting behavior that emphasized the contributor's qualifications for submitting or undertaking the research—occurred in 37% of the 857 total letters sampled. It was found to be statistically significant when controlling for discipline. Credentialling occurred least in astronomy letters, nearly as expected for sociology, and most in English.

<table>
<thead>
<tr>
<th>TABLE 2. CREDENTIALLING BY CONTRIBUTOR'S DISCIPLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 857</td>
</tr>
<tr>
<td>Astronomy</td>
</tr>
<tr>
<td>Sociology</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Totals</td>
</tr>
<tr>
<td>p &lt; .0001</td>
</tr>
</tbody>
</table>
The gender of the contributor was also significant as to whether credentialling did or did not occur. Women credentialled more frequently than expected and men at about expected rates. "Gender undetermined" refers to those contributors who used initials or foreign surnames whereby gender could not be ascertained.

TABLE 3. CREDENTIALLING BY CONTRIBUTOR'S GENDER

<table>
<thead>
<tr>
<th></th>
<th>OBSERVED</th>
<th>EXPECTED</th>
<th>CELL CHI²</th>
<th>% OBSERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>229</td>
<td>233</td>
<td>.1</td>
<td>37%</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>52</td>
<td>3.5</td>
<td>47%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undetermined</td>
<td>24</td>
<td>34</td>
<td>2.8</td>
<td>26%</td>
</tr>
<tr>
<td>Totals</td>
<td>318</td>
<td></td>
<td>chi²=10.14, df=2</td>
<td>37%</td>
</tr>
</tbody>
</table>

\[ p < .01 \]

Whether the manuscript accompanying the letter was accepted or rejected was also statistically significant when looking at the entire sample of letters.

TABLE 4. CREDENTIALLING BY ACCEPTANCE OR REJECTION OF THE MANUSCRIPT

<table>
<thead>
<tr>
<th></th>
<th>OBSERVED</th>
<th>EXPECTED</th>
<th>CELL CHI²</th>
<th>% OBSERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted</td>
<td>196</td>
<td>161</td>
<td>19</td>
<td>24%</td>
</tr>
<tr>
<td>Rejected</td>
<td>212</td>
<td>157</td>
<td>19.6</td>
<td>50%</td>
</tr>
<tr>
<td>Totals</td>
<td>318</td>
<td></td>
<td>chi²=61.42, df=1</td>
<td>37%</td>
</tr>
</tbody>
</table>

\[ p < .0001 \]
Yet, this finding is somewhat deceiving because of the inequality of sample sizes in the three disciplines studied; astronomy acceptances—where credentialling occurred least—far outnumbered accepted letters sampled from English and sociology. Percentages of occurrence indicate that credentialling does occur more frequently in letters accompanying rejected manuscripts, especially in the field of English.

**TABLE 5. CREDENTIALLING BY CONTRIBUTOR'S DISCIPLINE AND ACCEPTANCE OR REJECTION OF THE MANUSCRIPT**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Accepted (OBSERVED/ TOTAL)</th>
<th>%</th>
<th>Rejected (OBSERVED/ TOTAL)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>62/327</td>
<td>18%</td>
<td>10/44</td>
<td>23%</td>
</tr>
<tr>
<td>Sociology</td>
<td>28/69</td>
<td>41%</td>
<td>75/164</td>
<td>46%</td>
</tr>
<tr>
<td>English</td>
<td>16/39</td>
<td>41%</td>
<td>127/214</td>
<td>55%</td>
</tr>
</tbody>
</table>

**Hypothesis I.A.:** Credentialling will occur with greater frequency as a function of the softness of a field. The findings indicate that when accounting for the sex of contributors and the acceptance or rejection status of their contributions, the discipline of the contributor was significant \((p < 0.0001)\) in accounting for the presence or absence of credentialling. English and sociology—as soft paradigmatic fields—showed significantly more credentialling than did astronomy—a paradigmatically hard area of study.
I.A.1. The Name-Drop: "Dr. Jones Liked This Paper; Maybe You Will, Too."

As a sub-category of credentialling, the name-drop has the effect of linking the contributor and the research being submitted to a colleague or sponsor of equal or higher status. In some cases, the name-drop is linked with forms of institutional credentialling or with a self-evaluation of the work by the contributor or by those whose names are dropped.

In English, the name-drop often is as straightforward as, "At the suggestion of Professor____, I am submitting the accompanying essay, '_____,' for your consideration." In other instances, the status of the other person is defined: "Professor ____ , Chairman, Department of English, University of ____ , has suggested that I send this article to you." Similarly, "I thought you might like to know that I was recently notified by Professor ____ of ____ University that this paper has been accepted for presentation at the English II meeting of ____ in Washington." In the latter instance, an additional type of credentialling is observed, that of someone else's favorable evaluation.

There were name-drops which would have specific relevance to the editor of PQ: "When I visited the late ____ (former editor of PQ) in 1968 regarding added entries for ____ in the new ____ , he expressed interest in my basic research on ____ and suggested that I send parts of it to
the *Philological Quarterly* whenever they were ready. Our common interest in the ___ of the late seventeenth and early eighteenth centuries may have prompted the generosity of his suggestion." Thus a connection is made not only between the contributor and the late editor, but between *PQ* and the contributor. Another *PQ* submittor, from another university, noted institutional connections between his name-drop and the institutional home of the journal receiving his article: "Professor ___ (also from Iowa, teaches eighteenth century literature here) suggested that I might submit this to you." In a similar vein, another contributor mentions that her contribution is "a slightly expanded version of a paper, '____,' which was presented to the ___ Conference at the University of Iowa in March, 19___. At that time, Professor ____ (a *PQ* referee) suggested that I submit the paper to *PQ* for your consideration."

Referrals from other editors may also constitute another species of the name-drop for English scholars. "The manuscript was previously submitted to the ___ Review, whose editor, ____, said they would be 'proud to publish it,' but suggested that it might more appropriately appear in a journal of wider interest and circulation," wrote one scholar. Another contributor cites a seemingly contradictory referral: "Professor ____ , editor of ____, suggested that a specialized publication such as yours might find this essay of interest." The last example illustrates a name-drop
from an editor, coupled with his evaluation of the manuscript:

I send you my essay, _____, at the recommendation of _____, editor of ____. Professor _____ had fairly assured me that his journal would publish it, but his editorial board decided at the last moment that they would print no more explications of single authors, and regretfully rejected it. _____ feels the essay deserves publication, and in one of his letters said he intended to teach '_____' in terms of it and to assign it to all of his graduate students. He urged me to send it to you because of your interest in the classics.

In a field which rejects 90% of the manuscripts submitted, referrals from other editors are no doubt commonplace. Yet, they do have the effect of providing some degree of credence to the submission.

The name-drop occurred infrequently in astronomy letters, but when present it was more subtle and more directly related to the content of the research itself. An addendum to one letter indicates that "_____ Astronomy Department, University of ____; _____, has agreed to pay the page charges for this paper." Inferentially, the effect is that ____ supports and endorses the enclosed manuscript. Two other instances directly relate to how the work should appear in print: "This is the paper that the ____ paper refers to and is closely related to. ____'s suggestion that they appear together seems like a good idea." Thus Professor ____ endorses the article and recommends the two are complementary enough to be published side-by-side.
In sociology, a similar instance is cited which provides a name-drop to present a paper based on his work, and, in the process, his evaluation of it: "We feel that the AJS would be a particularly good forum for this paper, since the journal published several of ____'s articles, and also has had a substantive interest in ____ over the years. ____ read an earlier version of this paper and was enthusiastic about it. You may want to discuss it with him."

Although not so prevalent, name-drop credentialling in sociology approximates the same patterns as in English. There are more references, however, to the institutional affiliations of name-drops: "Professor ____ of ____ University has reviewed the article and suggested I send it to you"; and, "After Prof. ____ had seen the first draft of the essay, he made suggestions for some minor changes and added that I should submit it to you... ____ was a predecessor of mine here at ____." Similarly to English, special connections to the journal are emphasized: "I also noted that one of your readers is Professor ____ with whom I have been in correspondence in the past concerning our mutual interest in the ____ process." Luminaries lend special power to this credentialling form: "Much of this material appeared in my unpublished doctoral dissertation which had, among others, the active voluntary sponsorship of Dr. Margaret Mead."
Sociologists also were unique in their penchant for multiple name-drops: "Prior to submitting it to you, I have circulated it to several sociologists including _____, and _____, each of whom reacted favorably to it. Also, ____ of the ____ League has written to me offering that the ____ League purchase offprints of the article once it is published." Another contributor states that "I enclose a list of 8 names and half as many copies of the manuscript in case you choose to seek additional comments...I think it is pretty clear what you will receive--remarks to the effect that the paper is very important for readers who _____, that it is well organized, well written, but that it is difficult." Another contributor, after having noted that "Professor ____ of ____ State was the discussant for our session, and he expressed enthusiasm for our model," reiterates the name-drop and challenges the editor by adding that "at any rate, we hope you will send our paper out to review by persons truly knowledgeable regarding what we are attempting to do (e.g., Professors ____ , ____ , etc.)." One final most indirect name-drop was evidenced by the associate professor of social work who used the dean's stationery to transmit his article.

Frederick Crewes (1963) has written a satire entitled The Pooh Perplex, a fictional caricature of scholarly publication in English. A collection of "Scholarly" contributions is presented that rediscovers hidden complexities in
A.A. Milne’s *Winnie-the-Pooh*. An exaggerated revision of the name-drop paralleling those noted in this study is provided by a fictional scholar, Myron Masterson:

Before going further I would like to thank all the people who have made this article possible: Karl Marx, St. John of the Cross, Friedrich Nietzsche, Sacco and Vanzetti, Sigmund Freud, and C.G. Jung... The result, printed below for the first time, has shocked and enraged audiences from Tokyo to Wauwatosa, Wisconsin, and I am thinking of working it up into a monograph (p. 42).

I.A.2. The Institution-Drop: "Yale '46"

In transmitting articles for publication, it is nearly impossible to disguise the current institutional affiliation one has; the letterhead usually contains all of the pertinent information. Yet, past affiliations with primarily prestigious universities might go unnoticed. While not the case with astronomers, credentialling often takes the form of past institutional affiliations among English and sociology contributors.

In English, very often the institution-drop relates to where the contributor completed his or her terminal degree, and may be combined with a name-drop of one’s senior advisor or special subject matter concentration: "I received my Ph.D. in ____ Literature from ____ University in 1974, and am particularly interested in the study of English and _____. Or, simply put: "For the record, I am a graduate of ____ University, where I wrote my doctoral dissertation on ____."
A sample of schools mentioned included Harvard, Yale, The University of London, Indiana, and the University of Virginia—all with prestigious English studies departments. In fact, of the letters which exhibited this type of credentialling in English, the institution-drop was invariably to a more prestigious school than the one of the contributor's current affiliation. Examples of such institution-drops are included below:

**Table 6. Institution-Drops by English Contributors**

<table>
<thead>
<tr>
<th>Contributor's Current Institution</th>
<th>Contributor's Institution-Dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Texas, Dallas</td>
<td>Yale University</td>
</tr>
<tr>
<td>Hanover College</td>
<td>Indiana University</td>
</tr>
<tr>
<td>University of Massachusetts, Boston</td>
<td>University of Virginia</td>
</tr>
<tr>
<td>University of Pittsburgh</td>
<td>Harvard University</td>
</tr>
<tr>
<td>University of Akron</td>
<td>University of Tennessee</td>
</tr>
<tr>
<td>William Patterson College</td>
<td>New York University</td>
</tr>
<tr>
<td>Niles College</td>
<td>Northwestern University</td>
</tr>
<tr>
<td>Cleveland State University</td>
<td>Case Western Reserve University</td>
</tr>
</tbody>
</table>

At times, the submitted manuscript is linked to the institution-dropped: "I conceived the idea for the article while writing a doctoral dissertation at _____ University," or "It (the article) is drawn from my dissertation, which was completed two years ago at _____ University."

Students of English literature may also be legitimizing their submission of research studies: "I am a Ph.D. candidate at _____ University with a concentration in Early American
Literature." Likewise, "The essay is a result of my studies at ____ University (M.A., 19__) and my pre-doctoral studies at the University of ____.

Institution-drops may be combined with name-drops in two ways by English contributors, either as peripheral to the manuscript being submitted or as integral to its completion and submission. In the latter instance, note that: "When invited to address the ____ University Graduate English Association, I decided to work out an idea that ____ encouraged me to develop several years ago when I myself was a graduate student at the University of ____. The enclosed paper, '____,' is based on that talk." Also, "I would appreciate your considering for publication the enclosed article, which Professor ____ helped me plan as an NEH project at ____ University." Peripheral institution-name drops are represented by: "I wrote my dissertation on ____ at Yale under the mentorship of ____," and "My graduate study was done at the University of Tennessee in Knoxville, where I wrote my doctoral dissertation entitled '____' under the direction of Professor ____." Finally, a more informal: "Give my regards to ____ (a PQ referee), who may remember me from our days together at Yale." The implications are that the effect of this credentialling is twice-strong; both a name and an institution cement the author's qualifications for transmitting research.
In sociology, all instances of the institution-drop were provided either by students or by contributors who were no longer affiliated with institutions of higher education. None of the letters exhibited institutional letterhead stationery. Future plans as well as current institutional affiliation were covered: "Presently an advanced graduate student in Sociology at ____ University, my major interests are sociological linguistics, semiotics, face-to-face interaction, sociological theory and urban and community structure (including speech communities). I am planning to complete my Ph.D. in ____ at the University of ____, in order to focus more fully on these areas." Another doctoral candidate writes that, "Enclosed please find copies of my paper '____,' which I completed as part of my work in Sociology at the University of ____. Professor ____ felt that you might be interested in reading it."

It stands to reason that once one has left the ivied towers of a college campus, making an institutional connection might loom as important. Now a consultant to a state department of education, one sociology contributor explains: "I received my doctorate in post-secondary education, particularly adult education, from ____ University last year." A major industrial corporation consultant notes that "I received a Ph.D. in social sciences from the University of ____ in 1972." The institution-drop, while most multifarious in English and non-existent in astronomy, does offer
interesting insights into how credentialling is manifested by discipline.

I.A.3. Sponsorship: "On Behalf of Dr. Jones..."

Sponsorship—for the purposes of this study—is defined as the submission of a manuscript for publication consideration by someone other than the work's author. As a form of credentialling, it implies that the status of the sponsor is more prominent than that of the author. It may indicate that a senior colleague is transmitting a manuscript for a junior colleague or that a mentor is sponsoring an advanced graduate student.

Sponsorship was not observed in the sample of letters from English scholars. There were several examples in sociology, and, most prevalently, about twice that number by astronomers.

An interesting finding showed that 7 of the 10 sponsorships in astronomy came from a single institution. From this single institution four individual sponsors were represented, and three of the four used their institutional or academic title in the signature of the letter—a rare occurrence for scholars in this discipline. The seven letters were identical in format, as represented by "Enclosed are two copies of a paper entitled '____,' by ____ and ____, which is being submitted for publication in THE ASTROPHYSICAL JOURNAL." The letter's signature carried the sponsor's academic title,
usually "Professor of Theoretical Physics" or "Institute Professor of Physics."

In two of the other instances representing different institutions, academic or institutional titles were again included. The letters were brief, tersely transmitting the research. Both sponsors here, however, offered to pay page charges for the article's publication: "This Department is willing to pay any charges concerned with the publication of this paper. If accepted, we will want to order reprints."

The sole deviation in astronomy letters from revealing any motivation for sponsorship is quoted below:

Enclosed are two copies of ___'s paper '___', which he wishes to have considered for publication in the Astrophysical Journal. Page charges will be paid by this department.

I have read the paper and find the English to be good enough for its content to be readily understood, but not to be up to the Ap. J's usual standards. I suggest, therefore, that, when the paper has been found to be acceptable in regard to scientific content, it be returned to me, and I will then endeavor to improve the English. If you find this suggestion to be acceptable, you might wish to inform your referee that he need concern himself only with the paper's scientific content.

This latter rationale for sponsorship seems less credentialling than collegial service to one whose native language was not English.

In sociology, sponsorship occurred along with an evaluation of the work being submitted or accompanied by a description of the sponsor or sponsoring organization. The
rationale for sponsorship was more explicit, as was the sponsor's relationship to the contributor, in comparison to astronomy: "I am including two copies of a paper done by one of my graduate students who comes from Poland. She has been doing an outstanding job of research...I think that this is definitely a publishable work and hope that you can give it serious consideration." This letter was signed by a professor of sociology emeritus.

In a letter submitted by the commissioner of a federal agency, nearly half of the letter is devoted to an explanation of the mission of the agency; it is not until the next to last paragraph of the 461-word letter that a manuscript submission is alluded to:

Attached is a manuscript on ______ prepared by Ms. ______ of my staff (resume attached). I think the manuscript provides an excellent discussion of one form of citizen participation. I feel strongly that the Commission should share its experience in citizen participation with others. I have noted in your publication on numerous occasions articles dealing with the issue of citizen participation. I would expect, therefore, that not only you but your audience would be interested in Ms. ______'s manuscript.

In this instance, the sponsorship seems relevant only insofar as it serves the agency and helps clarify its "mission" to a particular audience. The contributor is also attempting to establish the article's position within what she perceives as the journal's "mission."
I.A.4. The Personal Aside: "How Are Madeline and the Kids?"

Dear ____,

How are you? I get the odd snippet news about you from ____, with whom I correspond regularly, and since ____, who is here visiting from Florida this semester, mentioned you the other day, I thought I would drop you a line. You may also have noticed by now that there is a little article attached to this letter. The reason is that I was going to send it to Philological Quarterly, realized that you were at Iowa (are you on the editorial board? I haven't got a copy at hand to find out), and thought I would send it via you, thereby tuanq deux oiseaux avec une pierre, as the French wouldn't say. I think it's worth space somewhere, if it's the kind of thing they print. Anyway, let me know.

As you can see, I'm now teaching at the University of ____ , being forced by lack of money to take up some kind of gainful employment. I guess considering the financial state of affairs that I was lucky to find an academic job at all. I was sad to leave ____ and ____ and ____ and ____ , but there you go.

I also gathered from ____ that you have been sending the ____ Newsletter and that a couple of the graduates up there are reviewing for you. Talking of mystics, just before I left ____, we had this lunatic American call, who described himself as a ____ . He thought that the ____ was related to a fourth-century mushroom cult, and had spent two nights out on ____ waiting for the sacred vessel to appear. I suggested to him that he went to look for it in the monastery of ____ ! I think he probably went.

I have to cut this short and give a lecture about the Wife of Bath, who always reminds me of ____ . Take care, and I may see you in the summer sometime, as I hope to get over the Atlantic to visit ____.

With fond memories of ____ and best wishes.

Somewhere beneath the chattiness of this letter addressed to a PQ referee, there exists the transmittal of a research article, upon first glance submitted as an afterthought. Yet,
the effect of the letter is that the contributor re-establishes personal connections with a referee for the journal to which he's submitting the manuscript (no fewer than ten mutual acquaintances were mentioned.). There is also a recognition that other acquaintances in common were involved as PQ reviewers. Although this submitted letter represents a caricature of the personal aside to the editor, it and other illustrations do have the effect of introducing particularistic concerns into the editorial judgment process; this kind of credentialling occurred in all three disciplines studied.

Among English journal contributors, the personal aside often serves to jog the memory of the editor about some past meeting or relationship. The connection may have been remote, as is this example: "If you recall, ____ introduced me to you at the 1972 MLA convention in New York, and we spoke later on the way to your talk on ____ in the profession, and at a cash bar." A similar instance serves to reintroduce the contributor, as well as rehash his past acquaintance with the editor:

The last time I saw you, five years ago at a ____ meeting, you were teaching Swift to Aleuts somewhere in the fartherest reaches of Pudget Sound. I am glad to learn that God, in his infinite mercy, has given you another calling—though exchanging Aleuts for editing may not be the bargain it appears. I, in turn, was called from ____ to the western prairies of ____, assuredly an unfair exchange. May God treat me as you have been.
In English, the aside usually includes name-drops as well: "I trust you thrive and hope our paths will again cross in the not-to-distant future. Please remember me to ____, ____ , and many other Iowa friends." Or, "I hope you are prospering, and that the ____ section went well in St. Louis. I truly missed going to ____ this year, and regretted not seeing old and new acquaintances again. Please give my regards to ____ and anyone else who will listen." Superficially, such an aside seems mere banter between close friends. Yet, in the context of the same letter, the banter serves to refresh the editor's knowledge of the contributor's credentials:

As you can see from the letterhead, I have changed jobs, mostly as a result of health problems (I had a mild heart attack last March), but also because of a general malaise I left ____. I even turned down an offer of tenure to leave ____ (mirabile dictu!).

(The new university) is treating us well so far, and being at a teaching-oriented college has not impeded my research as much as I thought it might. I read a paper on ____ at ____ in ____ last October, and I am awaiting for ____'s decision on an application to co-edit a New Variourum. So it goes.

The personal aside in sociology most often made some reference to past or future encounters with the editor, however short-lived: "It was nice running into you in Chicago, however brief"; "Thank you very much for the luncheon in San Francisco. I found it very enjoyable. I also appreciated the opportunity to meet you and other members of the editorial board." Again, "I hope I'll see you at either the World
Congress or the ASA meeting this August."

On rare occasions, the personal connection with the editor may be related to the manuscript submitted by the sociologist: "How very nice to learn that you were in the audience at the theory session in ____. It is personally gratifying that my presentation was sufficiently interesting for you that you wish to see the written text." Similarly, "You may recall that I mentioned this paper to you last summer." The latter instance and this from English establish that the contributor has, in a remote way, been solicited to contribute to the journal: "When we last corresponded, you suggested that I keep EQ in mind when I had something else to submit for publication."

In both sociology and English, contributors used the personal aside to compliment the editor, and to suggest personal benefits for him. As an example of the latter occurrence, a sociology contributor inquires: "I would like to add a footnote of acknowledgements—to members of the Department who read the manuscript and made helpful comments (This would include you). Are there protocol arrangements which would prevent this?" A fellow English journal editor, submitting his own manuscript, empathises:

Only you and a handful of others can appreciate how very difficult it is for journal editors to write a scholarly article while under the pressure of meeting deadlines and evaluating manuscripts.
The compliments come later: "Congratulations on your new Format! I especially like the green cover for the summer issue...I think that your new format of review essays will be very successful, particularly given the quality of your reviewers." Another English scholar adds: "(By the way, I read your article in SP last year and found it excellent.)"

I.A.5. The Past As Precedent: "I've published seven articles, six books, and three monographs on ____." Credentialling by English contributors frequently included references to past achievements—works that had been published, places where they had been published, or other prior accomplishments and honors. The effect of these citations was that they justified the contributor's undertaking present research or they made legitimate and worthy the contribution currently being submitted.

In some cases, contributors listed prior research that related to the topic of the paper currently being submitted: "This essay on ____ (and sociology) was first read, in a much shorter and formative version, four years ago at ____ [a convention]. I've written on that genre in over a half-dozen journals and am bringing a book to completion." This author omitted mention of where the publications appeared, seeming more concerned with expressing that the topic was not new to him. For others, it was important to establish the prestige of the previous publications: "I have written on
Similarly, the following illustration represents a tie-in to the topic being submitted, but emphasizes where past studies were published: "I am a Victorianist, am working on a book on _____, and have published or have essays forthcoming on _____ figures, in _____, _____, _____, and _____ (other research journals.)."

Connections to one's article being submitted need not necessarily be in the form of past publications alone:

I believe that I am well qualified to write about this subject. My major field of study at University included Theatre History, Literature, and Theory and Criticism, with an inside minor in Theatre Arts and an outside minor in _____ with an emphasis on _____ Dramatic Literature. My area of specialization is ____. I received my Ph.d. degree in Theatre and Drama from _____ University in May, _____, and I have been teaching at the University of _____ for seven years.

After listing past publications relevant to her present research, this contributor also reveals her motivation in providing that information: "As a researcher I recently finished work on a book length bibliography of the secondary works of _____ and ____. I worked as the graduate research assistant for Dr. _____, who authored the book. I mention my past work as a means of introduction and as a way of offering you an opportunity to review my previous work should you desire."

Another contributor indicates that past publications may provide him with certain considerations: "If the fact of prior
publication gives me any right to request expedition, I hereby make the request. I have published frequently—in PMLA, ____, ____, as well as other periodicals, and in book form." Although unusual, one English scholar enclosed a copy of one of his prior works: "Since I last wrote to you, I have had articles accepted by ____, ____, and ____, as well as several ____ journals. I enclose an offprint of my latest overseas publication."

In most instances, specific tie-ins to past accomplishments are not made to the current work being transmitted. In these letters, the prestige of the accomplishments or the sheer quantity of them is stressed: "As regards myself, I should like to inform you that I teach linguistics and ____ literature in the English Department of the University of ____. I have attached a list of my publications." Another emphasis on quantity: "I have published some thirty papers on ____, ____, and others." The emphasis in the following example falls on where research was published: "I have published articles on seventeenth-century poetry previously in such places as ____, ____, ____ , and ____ ." The press where one was published, usually in book form, is an important distinction for several authors: "My previous publications include...an edition of ____ 's ____ (Ohio State, 19__). I am co-authoring a translation of ____ for the series ____ ." Also, in another letter: "I was responsible for Book ____ in the Oxford edition of ____ (____ Press, 19__), and, in
collaboration with _____ (of _____ College) have just submitted to _____'s (a publishing house) a new critical edition of the ____ poems." The last example of past accomplishments as precedent for present considerations illustrates a combined emphasis on quantity and place of publication: "I am presently an Associate Professor of English at the University of _____ and have published 2 books (____ and ____—both Johns Hopkins, 19__) and 5 articles (in ____ , ____ , ____ , ____ Journal, and ____ Annual)."

While astronomy letters showed no evidence of "past as precedent" concerns, a few sociologists made such allusions, however subtly: "Here is another paper of mine which I would like to have considered for AJS publication." That short sentence constituted the entire transmittal, yet says much about the contributor. He has been engaged in prior research and he has made prior submissions to AJS, however successful. The other instances, following the pattern in some English letters, directly relate prior publication to the current work being transmitted: "My doctoral dissertation was on ____ and I have written a few articles on ____ ("____" The ____ (a newspaper); "____" ____ Bulletin, v.__, December, ___-January, ____)." In this instance, page numbers for the references were included, indicating the intent may have been to allow the editor to become familiar with the articles cited. Another sociologist also makes a specific link to his topic: "This is my third article on the
subject. The first, '_____,' appeared in the Summer, 19__
issue of _____; the second, "_____," in _____ for May/June,
19__." This latter letter had a post-script listing several
books in print, along with their dates of publication and the
names of the publishing firms.

I.A.6. **Self-Evaluation:** "We Believe This To Be The Most
Significant Work To Date On _____"

In all the disciplines studied, contributors were eager
to aid the editors and their referees in the evaluation of
the manuscript submitted. Particularly in English and socio­
logy, this form of credentialling was often the contributor's
assessment of his or her own manuscript. Perhaps the eval­
uation of others was also incorporated into the transmittal
letter; in some instances, referee reports from other journals
that had rejected the manuscript were included. Particularly
in astronomy, and to a limited extent in sociology, there was
a contributor concern about capable and impartial refereeing,
to the extent that certain referees either were requested or
requested not to evaluate the manuscript. Since most of the
concerns, either in self-evaluation or suggestions to the
editor, represent particularistic areas and do not directly
relate to the research itself, they have been categorized as
credentialling behavior.
It is interesting that in each case of a contributor suggesting a particular referee to be used or not to be used, the AJ editor complied. Such action was not always the norm in sociology or English, where attempts at self-evaluation may have prompted an editorial rebuke, as from the editor of PQ:

I am not sure what the rule should be, but personally I do not particularly welcome readers' reports for other journals or advice on how to choose a reader, and I do not think that most other journal editors would either. I am not trying to give the impression that we or our readers think that we are infallible, but we do like to think that we know how to do something. If a journal regularly publishes high-quality material, that fact should be an indication that the editors and readers know what they are doing.

The contributor, in a follow-up note, apologized for departing from disciplinary norms, citing amateurism as a reason:

"I see now, also, that to enclose the comments of other readers was more impertinent than helpful. This was the first piece I have submitted. Your frank note cured me, I trust, of such editorial interference in the future."

Again in English, the editor did comply with the contributor's request and responded accordingly: "I would not normally send so negative a reader's report, but since you specifically asked me not to send the paper to Miss _____, I wanted you to know that I had not done so. I do hope that the expression 'respond accordingly' in the last paragraph of your letter is not a threat. Any packages that tick should
be sent to me, not to Mr. _____, since I am the one who ultimately makes decisions here." In this instance, the PQ editor, because of suggested methodological biases, did subvert the manuscript away from the reader in question.

In not every instance is the question one of methodological bias. Astronomers, in particular, have reservations because of serious ethical concerns:

As a most competent referee of this paper we suggest Dr. ____... Anyhow, we would be grateful if ____ is not consulted for this purpose, having in fresh memory his treatment of our ____ paper during May-June 19. As you might remember that report involved quite unique suggestions which mostly served the purpose of concealing earlier erroneous measurements by the referee himself and were attempts to delay the paper till the referee had finished a new paper concerning the same topics. Since the enclosed paper partially is a parallel case, a consultation of another referee will save both you and us a lot of trouble and better facilitates a free scientific communication.

In a field where knowledge has immediate relevance and utility, there is often greater danger of being anticipated and competition is heightened (Hagstrom, 1965). Often the problem with a referee is not well-defined in astronomy: "Because of some unfortunate personal interactions we have recently been involved with, may we request that this manuscript be refereed by people at any institution other than ____." A list of eleven possible referees and their institutions follows. Another astronomer writes that "we would like to take the unusual step of requesting that this paper not be sent to Dr. _____ for review. While we have
not been in contact with Dr. ____ about this work and know of no reason why there should be any controversy, our past experience leads us to believe that we might become embroiled in issues peripheral to the scientific questions involved."

In addition, the suggestion of readers may be of practical benefit to the contributor: "I hope that you will find it possible to send the current paper to the same referee who has so far provided me with such extensive criticism of a constructive character." Similarly, "I would note that ____ is quite ill at present. I hope that, if he is sent this to referee, appropriate steps can be taken to avoid excessive delay if he takes a long time to respond." And finally, "I would like to request that the referee not be ____ who is off climbing mountains in Alaska until the middle of August."

Immediacy of publication is penultimate in a field which is cumulative and where knowledge is fast-developing. Astronomy--being such a compact and small field of researchers--is unique among the disciplines studied in that contributors may already have circulated their manuscripts for review:

"Because certain findings reported here are at variance with those reported by ____, I have taken the liberty of directly sending him a copy of the manuscript for his review and will consider his comments. Other reviewers who might have helpful comments are Drs. ____ , ____ , ____ , ____ , ____ , ____ , ____ , or ____ ."
Of note in sociology is that every instance of referee concern relates directly to methodological or content concerns. In a softer paradigmatic area than astronomy, schools of thought are more likely to be prevalent; here there are not so much personality or ethical conflicts, but rather basic differences in research style that reach to the heart of the content of the manuscript. In a letter accompanying a grounded-theoretical approach:

I hope that you will take these features into account in selecting referees so that we will be valued within the domain of both our goal and our method. Hopefully someone familiar with ethnomethodology and/or _____ theory would be selected, or a _____ from the Chicago School like _____ who also uses an inductive approach in his social psychological works. Most importantly is selection of people open to different ways of generating/testing sociological theory, open to seeing the domains of "mainstream" sociology expanded.

I apologize if this sounds defensive. We know and have been explicitly told that this work may be five or ten years ahead of even the state of ethnomethodology. But I would rather not have my works collected post-mortum.

Thus suggestions to the editor are compounded with a self-evaluation of the work. A similar concern is voiced by another sociologist: "We are a bit concerned about the manner in which this particular paper is reviewed because of the fact it focuses directly on issues that are of relevance to both those in complex organization and criminology. Frankly, I don't know whether someone in complex organization could give you a better opinion on the quality of the paper than could someone in criminology." Due to the vastness of the
sociological community, specific referee names may not be alluded to: "In specific, I think that appropriate reviewers should be familiar with at least one of the following areas: _____ theory, _____, ethnomethodology, sociolinguistics, social psychological theories of _____ and ____ theories of deviance." Finally, a contributor stresses the uniqueness of his subject matter: "I am sending it to the Journal because the analytic perspective and style are heavily indebted to the Chicago School of ____. To facilitate a reading of the article, it may be helpful for you and your editors to solicit the reactions and evaluations of members of that school. This may not be too difficult since two or three of them, including its leading spirit, are on the advisory board."

Contributors in all three fields engaged in their own assessments of their contributions. In sociology, this author made allusions not only to the quality of his work but to his own reputation: "I enclose three copies of a paper that has been in the works for 12 years, and so I hope that you will not take 12 years, 12 months, or even 12 weeks to review it. How about 12 days? Seriously, I think that it is the kind of paper that the Journal has traditionally liked, and I hope you agree." Later, "I can't imagine your sending it to anyone to review who would not recognize it immediately as coming from me." Another contributor to the same journal notes as well: "I had to cite myself once on page 20. You
may want to conceal the reference. But I doubt you can preserve the anonymity." In both cases, the inferences are that "I am so well-known that my work will be recognized immediately."

One contributor to *AJS* made the assumption that "editors quite legitimately have to ask an author what makes his article so distinctive that it merits publication. I would give the following reasons: A)...B)...C)...D)..." Another sociologist states that "I am the first sociologist ever to conduct research on ____ students' occupational prestige evaluation and it is hoped that my research data would generate more interest for years to come."

English scholars, in self-evaluating their contributions, tend to emphasize the originality of what they are submitting: "I believe you will find the essay concise, clear, and innovative. It offers a new and telling perspective on ____. Well, I won't argue my thesis here." Again, "I believe it offers, for the first time, an explanation which ties the varying sums mentioned to a major theme of the play." This last illustration reiterates originality as a criterion for effectiveness:

I am submitting a paper on ____ for your consideration. If the pattern of evidence marshalled is convincing--and I think it is--then the proposition it establishes signifies a real breakthrough in ____ scholarship. The argument over the existence or non-existence of Christian elements in ____ is an old one, and I think that this paper should finally settle it. In addition the paper supplies important new information on the new nature and
structure of _____.

In recommending for rejection of the manuscript, the referee commented that "Mr. ____ to some extent lacks the Christian virtue of humility as he posits that his paper has finally settled the Christian/Pagen controversy which continues to swirl around ____...I found it Teutonically Procrustean."

Important here is that PQ referees, who do not evaluate anony- mously, obviously have access to the transmittal letter as well as the contributor's manuscript. Perhaps the epitome of self-evaluation is to compare the current work being transmitted to one's past performance: "The enclosed essay on ____, I think, is the best thing I've ever written, in over a decade of such labors. If nothing else, the piece is certainly likely to be controversial, although I believe I have done more than that by truly advancing our understand- ing of this difficult play." The following example from PQ combines evaluation of his work with a past record of successful publication: "I think it is an important article, and you may wonder why I am sending it to you rather than to one of the specialized Shakespeare journals. Actually, I am in the absurd position of having published articles on ____ in all of them, and I would like to reach a wider audience with this one."

Astronomers were rare in their own evaluation of their manuscripts. Two letters were rejected manuscript submis- sions and, according to the editor, represented "kook"
submissions that constitute a certain percentage of the transmittals:

When one finds truth to oneself, one wants to share this experience with everyone and everything known to human thought. Well, this is a truth I would like to share with you about my true feelings and thoughts about that question, "Can the eternal debate about the origin and nature of our universe be solved?" I believe in time my work will prove itself to be true in answering any questions.

Another letter accompanying a rejected manuscript begins: "I beg you, dear Prof. Abt, to pay adequate attention to my experimental paper which, according to me, is a Nobel-price (sic)-bringing paper." In letters for manuscripts that were accepted, important breakthroughs are stressed: "I believe the present paper addresses this matter with some success, and as such represents a significant advance in theories of ___ evolution"; and in another letter, "we believe this to be the most significant work to date with regard to...."

I.A.7. Reverse Credentialling: "This Isn't My Best Effort, But..."

"Reverse Credentialling" is meant to signify that self-effacing behavior by contributors that portrays the lack of success that the manuscript being submitted has had or the poor track record that the contributor has had with the particular journal being submitted to. The behavior was manifested in all three disciplines, but most prevalently in English. The contributor expresses, oftentimes, that there
is still hope that the contribution can acquire its just-dessert by being published.

English scholars submitting to **PQ**—which rejects nearly 90% of the manuscripts it receives—at times reflect their poor publication record with this journal: "I should begin by assuring you that the enclosed manuscript is not about the _____. It is also not forty-plus pages in length. It is rather a short essay on the opening passage of _____. I hope you will find it more appropriate than some of my other productions have been for the pages of **PQ**." Later in the same letter, the author recounts the "unfortunate story" of a prior submission which "still seeks a home." A general frustration that can be observed with the whole process of publishing and evaluation is apparent: "I now wish that I had chosen several years ago to link all of the ____ essays into a monograph-length piece. Had I done so, though, I'd probably be wishing now that I'd made the other choice."

Some scholars, despite past failures, still retain hope: "In spite of my poor track record of past submissions to **PQ**, I remain confident in your editorial decisions and your always-thoughtful advice. I do hope that this time, though, I've come up with what you're looking for." Another contributor demonstrates a cynicism, which he turns upon himself:
"Brazenly enclosed is yet another argument of mine on ____. The second footnote will indicate that the ground I work assiduously is not virginal. I still pursue what I hope is not a will-o-the-wisp, the conclusive argument that overwhelms and devastates, the moral equivalent of Gulliver's capturing the fleet of Blefuscu. Whether or not you are able to find a place for this in PQ...

Other English scholars, while citing successes with other journals, still have aspirations for PQ publication:

My articles ____ have appeared in (twice), and ____, among other journals. But never in yours. You once did return a submission, praising it so far as to say that you would publish it but thought it should first be tried elsewhere. I followed your suggestion, and ____ took it. Thus, I've still got your editorial walls to climb. I enclose return postage, if it should come to that.

This letter introduces a curious question concerning the referral process whereby an editor who rejects a manuscript suggests alternative publication possibilities for the contributor. Oftentimes, the contributor interprets the referral as an endorsement from the editor, which in some cases may only be perfunctory cordiality. This is especially apparent in referees' comments to the editor in PQ:

"Advise the author to submit his note to ____. Do so politely, thus disguising the natural opinion of mankind concerning the quality of this submission." In another instance, from another referee: "I would recommend submission to ____. The paper isn't really an 'original' as the author claims. It is readable, but in a bland sort of way. Please reject with the kindest heart possible." In fact, the
referral by the referee, rather than being praise of the manuscript, represents an indictment of a less discriminating journal: "I agree with _____ that the author should submit the paper to ____, for I cannot agree that this is a very well-written paper. Clearly, I'm not the sympathetic reader that this paper perhaps deserves. I think the author will find a more congenial audience at _____."

At the same time, the editor of a journal in a high-rejection discipline can serve an important function in educating contributors to more appropriate outlets for their work. Contributors genuinely seem appreciative of such referrals, while still expressing a certain hopelessness:

Thank you for your kind, decent, civilized (rejection) letter with the helpful notes from the reader. In an academic world which is often cruel and quite without heart or tact yours was a pleasant exception. I have revised my paper and already sent it off again, this time to a speech journal, as you suggested I should do. I do intend to try your splendid journal again one day.

Another contributor to PQ expresses frustration at positive comments by editors, but continued rejections:

I have in fact tried the interdisciplinary journals you suggest: _____ felt that it was too much of an historical note, not enough an essay; _____ said they had already accepted too many papers having to do with literature. Everywhere the paper has gone it has been praised as well-written but not within the scope of the journal's area of interest. These other journals include the following: _____, _____, _____, _____, and ____. Could you suggest any others?
With difficulty appearing in print a reality in English, it is not surprising then to observe an entire transmittal letter which presumes the negative: "If you decide not to accept the enclosed article for publication in Philological Quarterly, I would greatly appreciate your passing on to me your readers' comments."

In calling attention to their prior lack of success with a manuscript, the contributor in English may lash out at the review process: "The enclosed manuscript on ____ has been around somewhat. Specifically, it has been rejected by ____, ____ and _____. The consensus is that it is well written and put-together but that ____ couldn't have intended anything of the sort. Well, I think he could have! Anyway, PQ published an article of mine in the past." One contributor cites conflicting readers' reports from another journal and complains:

One would gladly rewrite a piece that is either 'solemn' or the hammering equivalent, but it is hard to know what to do with material that for one reader is obvious and for another 'might be there.' As an author, I am personally put off by the depreciative and deflating response of this type, 'I've always known this,' when the matter is not on record, and as an editorial consultant I think I'd be disinclined to say such a thing even if it were true.

Other scholars may call attention to particular weaknesses in their works, then defending what they perceive to be potential referee criticism: "I am somewhat uneasy about the aggressive tone and manner of certain sentences in my
essay; but..."; or, "I am aware that it is long. And I am aware that it is polemical, taking a generally unpopular position and one opposed to that of its logical reader, ____. But..."; and finally, "my paper is, perhaps, old-fashioned in critical method and short on scholarly apparatus, but...". The "buts" allow the contributor to pre-suppose forthcoming criticism and respond to it as they transmit the research.

Quite apart from the work itself, some English scholars "reverse credential" by alluding to their own lack of qualifications for doing the research: "I have no job or publications to my name at present. I have only a thesis on ____ and a ____ University name PH.D. I hope in asking you to consider my article for publication that I won't too much remind you of the presumptuous builders of Babel I write about." Yet, while appearing to renounce one's status, the contributor is really credentialling him or herself, as in this next example:

Other than my background in English and American literature (I have an M.A. in English from the University of ____ and my enduring delight with ____'s fine novel, I can claim no special qualification for selecting such a topic as ____. However, I myself think, as does a helpful advisor who has read the essay and urged me to submit it, that the enclosed manuscript merits consideration for your journal.

The assumption in this discipline also seems to be that it is expected that one establish qualifications for doing research as one transmits it for evaluation.
Similar patterns of self-effacing behavior were found in sociology, yet without the proliferation found among English scholars. An example follows: "I should like to note a few things that may help you come to an early editorial decision (a possible dismissal without review)...fully recognizing its deviant nature, I nevertheless followed the advice of several friends who suggested submitting it for publication to a journal that does not shy away from methodological pieces and is willing to take innovative approaches." Again, there is also a prodding of the editor to uphold what the contributor perceives has been the journal's traditional role.

Other sociology journal contributors appear apologetic in submitting their research: "Don't worry, I will not continue to bombard you with manuscripts. Because I am now working on a book, this is the last paper I will be submitting for some time." In another example, "Here is the paper I have been threatening to give you for some time." The implications of the first communication are that the contributor is an active researcher and that he has dealt in the past with AJS; he further credentials himself by updating the editor on his most recent undertaking, a book-length effort.

In astronomy, the only instance of this behavior was involving a scholar who solicited feedback for a manuscript that departed from his past research interests:
It is with great fear and trepidation that one tries to do any research outside of a field to which his past acts have condemned him. So I wonder if I could impose on you for a favor? Would you read through this manuscript and see if it is absolute nonsense, partial nonsense, or possibly worthy of publication somewhere. I have considered journals ranging from the Astrophysical Journal to Astounding Science Fiction and my local colleagues haven't been too much help. The prevailing opinion seems to be that it is too long for Nature, too quantitative for the PASP, and perhaps too speculative for the Ap.J. If this thing has any value it should probably appear in print soon.

While engaging in some self-deprecation of his work, the contributor's "somewhere" obviously includes AJ as a publication outlet.


English scholars, evidencing the most pervasive credentialling, were also the most profuse on an individual basis. All forms of credentialling—self-evaluation, the name and institution-drop, or past success as precedent—may have occurred in the same transmittal letter. In these instances, the editor could presumably choose which of the qualifications were relevant, and ignore the rest. Contributors represented in this category treated the transmittal of research similarly to an application for a job: "I am attaching a resume" or "I enclose a curriculum vitae sheet to indicate something of my background." One contributor begins her letter: "Perhaps it would be helpful to identify myself briefly."
Her brevity included two past publications with their accompanying university presses; her teaching experience; speaking engagements and symposia attended; as well as sabbatical fellowships. Another scholar addends a "Short Biographical Note About the Author," covering editing, publishing, and teaching experience.

The following letter provides an interesting summation for the discussion of credentialling sub-categories since it offers nearly every type mentioned:

Professor [name-drop] of the University of [institution-drop] heard the enclosed paper on [topic] when I presented it in the bicentennial seminar at the National [conference] in San Francisco. He was kind enough to call it 'definitive,' ['self-evaluation'] and suggested [journal] might be interested in it. I believe he will contact you regarding it [sponsorship].

He mentioned in one of his letters that you are a classicist as well as an Anglicist, and I was pleased to learn at least one other member of an English department pursued such study [personal aside]. I worked under [name-drop] at [university] in classics. I have published on classical subjects from time to time, and have taught senior level courses in the classical tradition [past as precedent]. I would be interested to learn what work you yourself did. There may be some joint project we might consider [personal aside].

I am attaching a resume so you may know something about my previous publications [grab-bag]; I had a book on [subject] published in 19[year] [past as precedent].

To reiterate, credentialling as a transmittal behavior by contributors was significant in explaining disciplinary differences between astronomers and English scholars.
Sociologists credentialled at approximately the expected rate. The following table summarizes by a contributor's discipline the kinds and extent of credentialling behavior:

**TABLE 7. CREDENTIALLING CHARACTERISTICS OF ASTRONOMERS, SOCIOLOGISTS, AND ENGLISH SCHOLARS**

<table>
<thead>
<tr>
<th></th>
<th>EXTENT OF CREDENTIALLING</th>
<th>PREDOMINANT CREDENTIALLING CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomer</td>
<td>Very little</td>
<td>Sponsorship</td>
</tr>
<tr>
<td>Sociologist</td>
<td>Moderate</td>
<td>Self-evaluation, Name-drop</td>
</tr>
<tr>
<td>English Scholar</td>
<td>Profuse</td>
<td>The Past as Precedent, Name-drop, Personal-Aside</td>
</tr>
</tbody>
</table>

I.B. Institutional Credentialling

Institutional credentialling is the category that emerged to illustrate a contributor's citing his or her organizational status or formal title within the institution. Typically, these references included the contributor's academic rank—"Associate Professor of Sociology"—or one's departmental status, i.e., "Department Chairman." Typically, these indicators were located in the signature of the letter, rather than in the body. The effect of institutional credentialling was to establish the contributor's qualifications for submitting the research, by virtue of status within an organization rather than by any relationship with the subject matter being transmitted.
Institutional credentialling was determined to be statistically significant when controlling for academic difference:

**TABLE 8. INSTITUTIONAL CREDENTIA LLING BY CONTRIBUTOR'S DISCIPLINE**

<table>
<thead>
<tr>
<th></th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi^2</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>56</td>
<td>160</td>
<td>67.4</td>
<td>15%</td>
</tr>
<tr>
<td>Sociology</td>
<td>167</td>
<td>100</td>
<td>44.3</td>
<td>72%</td>
</tr>
<tr>
<td>English</td>
<td>146</td>
<td>109</td>
<td>12.6</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>369</td>
<td></td>
<td><strong>chi^2 = 218.29, df = 2</strong></td>
<td></td>
</tr>
</tbody>
</table>

\[ \chi^2 < .0001 \]

The findings here indicate marked contrasts between sociologists and astronomers, with English scholars institutionally credentialling at nearly expected rates.

The Gender of the contributor was not significant in explaining this behavior, as is illustrated below:

**TABLE 9. INSTITUTIONAL CREDENTIALLLING BY CONTRIBUTOR'S GENDER**

<table>
<thead>
<tr>
<th></th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi^2</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>285</td>
<td>270</td>
<td>.8</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>60</td>
<td>.1</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Gender Undetermined</strong></td>
<td>27</td>
<td>39</td>
<td>3.8</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>369</td>
<td></td>
<td><strong>chi^2 = 8.36, df = 2</strong></td>
<td></td>
</tr>
</tbody>
</table>

\[ \chi^2 > .01 \text{ (not significant)} \]
When controlling for acceptance or rejection, accepted manuscript letters showed significantly less institutional credentialing:

| TABLE 10. INSTITUTIONAL CREDENTIALLING BY ACCEPTANCE OR REJECTION OF THE MANUSCRIPT |
|-------------------------------------------------|-----------------|
|                                  | OBSERVED | EXPECTED | CELL CHI² | % OBSERVED |
| Accepted Manuscripts           | 111      | 187      | 31.1      | 26%        |
| Rejected Manuscripts           | 258      | 182      | 32        | 61%        |
| Totals                         | 369      |          |           | 43%        |
|                                  |            |          |            | p < .0001 |

Again, because of the unequal sample sizes—astronomy acceptances far outnumbering those from the other disciplines—it is illuminating to present percentage findings for each discipline:

| TABLE 11. INSTITUTIONAL CREDENTIALLING BY CONTRIBUTOR'S DISCIPLINE AND ACCEPTANCE OR REJECTION OF THE MANUSCRIPT |
|-------------------------------------------------|-----------------|
|                                  | ACCEPTED (OBSERVED/ TOTAL) | % | REJECTED (OBSERVED/ Total) | % |
| Astronomy                          | 51/327           | 16% | 5/44 | 11% |
| Sociology                          | 44/69            | 64% | 123/164 | 75% |
| English                            | 16/39            | 41% | 130/214 | 61% |

While sociologists and English contributors whose manuscripts were eventually rejected institutionally credential from 10-20% more than their counterparts whose papers were
accepted, astronomers exhibit the reverse trend. These findings would show, then, that discipline of the contributor as well as the acceptance-rejection factor help account for the presence or absence of institutional credentialling.

Hypothesis I.B. Where credentialling does occur, it should exhibit greater institutional credentialling as a field is soft and life.

Prior research had indicated that paradigmatically soft fields of study that are concerned with life rather than non-life content have departmental chairpersons who are more oriented toward the organizational climate and administrative processes of their department or institution (Smart and Elton, 1975). The relationship implied relates to Biglan’s report that life area faculty report more exogenous influences on their work and that they are more service oriented. Since sociology had been described as both life and soft by Biglan, the expectations were that institutional credentialling would be greatest there. English, as a soft/non-life field, was expected to exhibit more institutional credentialling than astronomy, which is classified as non/life-hard. The statistical findings for this study confirm those expectations.

Two instances of “institutional forswearance” or concealment occurred among English scholars. While citing their organizational titles, the contributor of the first
letter notes that "I am currently Assistant Professor of English at a private college in the neighboring state of ____." Since no letterhead stationery was used, the effect is the concealment of his specific school. Another PQ contributor offers this interesting suggestion:

> It occurs to me that some presentation of credentials is in order whenever an unknown advances an argument that is out of tune with prevailing views. And if my chances of acceptance would be improved by the gesture, I would not insist that the ungainly name, "___ University," appear at the close of the article. I was part of the last (there have been several) faculty attempts here to remove that awkward title from our institution but the Alumni Association, fond of the ____ on the football helmets, won out again.

Although astronomers credentialled themselves institutionally very little, it was more likely to be done when affiliations were not with university campuses; government agency or private laboratory contributors often indicated their status, such as "Senior Research Scientist, Theoretical Studies Branch, NASA."

Since this study also had access to referees' reports and followup correspondence between contributors and editors, there was an interesting deviation that occurred primarily in sociology contributors letters. After some favorable response by the referees or editors had been indicated—usually in the form of suggested revisions and resubmissions—institutional credentialling was not extant in the follow-up letter. In one instance, a lecturer included his title in the signature of the second letter, having omitted it in the
Concerns for advancement within one's institution were mentioned in all three disciplines, usually accompanied by an appeal for quick adjudication of the submitted research. Often, the exact concern is not specified, as in this request by a sociologist: "I am quite concerned, for immediate local reasons, that the process be as expeditious as possible." More often, the reality is that the contributor's chances for tenure hinge on the article's publication: "Since I am currently facing a tenure decision, I would appreciate hearing from you soon." The status of advanced graduate students is also alluded to, first in Astronomy: "We are especially interested in learning by August 19, if at all possible, whether these papers are acceptable, in order that ____ can satisfy his future employer's strong desire that he officially fulfill University of ____ Ph.D. requirements before the end of the summer." A second instance of student concern with institutional advancement occurs in English: "I am presently a teaching fellow at ____ University. I teach part-time and I am going for my Master's degree in English and American Literature. The reason I am trying to publish is because I've been told my papers are good and publishing would increase my chances for acceptance into doctoral programs."
I.C. Institutional Credentialling and the Contributor's Institutional Type

In 1973, the Carnegie Commission on Higher Education published a classification system of higher education institutions which showed five main categories and 18-sub-categories (p.1). Such criteria as amount of federal assistance awarded, number of Ph.D.'s and M.D.'s granted, and the institution's curriculum or prestige ranking were used to categorize institutions. The following categories, as taken from the Carnegie study, will be used to identify how institutional credentialling is related to the contributor's own institutional type. (Two-year and technical categories were omitted from the Carnegie report, since journal contributions from those schools were rarely existent.);


2. Research University II (RUII): Among the 100 leading universities in federal support. More than 50 Ph.D./M.D.'s awarded.

3. Doctoral Granting University I (DGI): At least $3 million in federal support and over 40 Ph.D./M.D.'s awarded.

4. Doctoral Granting University II (DGII): At least 10 Ph.D.'s awarded.

5. Comprehensive University or College I (CI): At least two professional programs plus a liberal arts component. Over 2000 students. No Ph.D.'s awarded.
6. **Comprehensive University or College II (CII):** At least one professional program plus a liberal arts component. A minimum of from 1000-1500 students.

7. **Liberal Arts College I (LAI):** Strong liberal arts tradition. On top 200 list of schools whose graduates received Ph.D.'s at 40 leading schools from 1920-66.

8. **Liberal Arts College II (LAI):** Only liberal arts colleges not meeting LAI criteria.


In order to determine any possible relationship between a contributor's own institutional type and his or her credentialling by references to an affiliation within that institution, the table below indicates frequency and percentage of institutional credentialling by the contributor's own institutional type, academic discipline, and the acceptance status of the manuscript.
TABLE 12. INSTITUTIONAL CREDENTIALLING BY CONTRIBUTOR’S DISCIPLINE, INSTITUTIONAL TYPE, AND MANUSCRIPTS ACCEPTANCE OR REJECTION.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Accepted Manuscripts</th>
<th>Rejected Manuscripts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(OBSERVED/TOTAL) %</td>
<td>(OBSERVED/TOTAL) %</td>
</tr>
<tr>
<td>ASTRONOMY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research U.I</td>
<td>29/200 15%</td>
<td>4/11 36%</td>
</tr>
<tr>
<td>Research U.II</td>
<td>3/20 15%</td>
<td>2/4 50%</td>
</tr>
<tr>
<td>Doctoral Granting I</td>
<td>5/7 71%</td>
<td>0/0 --</td>
</tr>
<tr>
<td>Doctoral Granting II</td>
<td>0/0 --</td>
<td>0/0 --</td>
</tr>
<tr>
<td>Comprehensive I</td>
<td>0/0 --</td>
<td>0/2 0%</td>
</tr>
<tr>
<td>Comprehensive II</td>
<td>1/1 100%</td>
<td>0/0 --</td>
</tr>
<tr>
<td>Liberal Arts I</td>
<td>0/1 0%</td>
<td>0/0 --</td>
</tr>
<tr>
<td>Liberal Arts II</td>
<td>0/0 --</td>
<td>0/0 --</td>
</tr>
<tr>
<td>SOCIOLOGY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research U.I</td>
<td>31/44 70%</td>
<td>45/57 79%</td>
</tr>
<tr>
<td>Research U.II</td>
<td>6/7 86%</td>
<td>22/26 85%</td>
</tr>
<tr>
<td>Doctoral Granting I</td>
<td>6/8 75%</td>
<td>15/23 65%</td>
</tr>
<tr>
<td>Doctoral Granting II</td>
<td>0/0 --</td>
<td>5/6 83%</td>
</tr>
<tr>
<td>Comprehensive I</td>
<td>0/0 --</td>
<td>16/19 84%</td>
</tr>
<tr>
<td>Comprehensive II</td>
<td>0/0 --</td>
<td>3/3 100%</td>
</tr>
<tr>
<td>Liberal Arts I</td>
<td>0/0 --</td>
<td>3/3 100%</td>
</tr>
<tr>
<td>Liberal Arts II</td>
<td>0/0 --</td>
<td>1/1 100%</td>
</tr>
<tr>
<td>ENGLISH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research U.I</td>
<td>7/13 53%</td>
<td>30/55 55%</td>
</tr>
<tr>
<td>Research U.II</td>
<td>4/6 67%</td>
<td>20/23 87%</td>
</tr>
<tr>
<td>Doctoral Granting I</td>
<td>3/4 75%</td>
<td>18/22 82%</td>
</tr>
<tr>
<td>Doctoral Granting II</td>
<td>1/1 100%</td>
<td>9/12 75%</td>
</tr>
<tr>
<td>Comprehensive I</td>
<td>2/4 50%</td>
<td>18/30 60%</td>
</tr>
<tr>
<td>Comprehensive II</td>
<td>0/1 0%</td>
<td>4/6 67%</td>
</tr>
<tr>
<td>Liberal Arts I</td>
<td>0/1 0%</td>
<td>5/7 71%</td>
</tr>
<tr>
<td>Liberal Arts II</td>
<td>0/2 0%</td>
<td>4/5 80%</td>
</tr>
</tbody>
</table>

These findings indicate that in each discipline studied, institutional credentialling occurs least in the more prestigious Research Universities I. The exception is among sociologists from Doctoral Granting Universities I, who institutionally credential less than their research university counterparts. The implications are that when one is affiliated with a prestigious institution there is less need to credential one's own status within that institution.
The findings also have broader value in revealing the comparative institutional heterogeneity or homogeneity of contributors submissions by field of study. In astronomy, of the 246 submissions for whom the contributor's institutional affiliation could be ascertained, 211 came from Research University I institutions (representing 86% of the total submissions). It should be noted that AJ draws many contributors from AURA schools (The Association of Universities for Research in Astronomy), those with observing facilities and active Research capabilities. All institutions in this group are Research I Universities: University of Arizona, Cal-Tech, University of Chicago, University of California, Berkeley, Harvard University, University of Indiana, University of Michigan, Princeton University, U. Texas at Austin, University of Wisconsin, The Ohio State University, and Yale University. Sociologist submissions show 96/197 coming from Research I Universities, representing a rate of 49% of total manuscripts received. English shows the greatest heterogeneity of submission and acceptance by institutional type, with rejected and accepted manuscripts extant according to every type studied. Research University I manuscripts represent only 35% (68/192) of total submissions, however, still constituting the largest single institutional category of manuscripts considered.
The following table offers a summary of the extent of institutional credentialling by scholars in each of the three disciplines:

**TABLE 13. SUMMARY OF INSTITUTIONAL CREDENTIALLING CHARACTERISTICS OF ASTRONOMERS, SOCIOLOGISTS AND ENGLISH SCHOLARS**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Extent of Institutional CredentiaIlIing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomer</td>
<td>Very Little</td>
</tr>
<tr>
<td>Sociologist</td>
<td>Profuse</td>
</tr>
<tr>
<td>English Scholar</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

II. WHAT CONTRIBUTORS REVEAL OF THEIR DISCIPLINES IN THEIR COLLEAGUES REFERRED TO

II.A. Number of Colleagues Referred to

As a measure of the social connectedness of scholars by disciplines, a count was taken for each letter to determine the number of colleagues mentioned in the course of the contributor's research transmittal. Included in the count were the names of co-authors, sponsors, suggested referees, acquaintances, and name-drops. Included also were the names of authors who happened to have been cited in the explanation of the research.

Utilizing a Type III Sum of Squares factorial design, an analysis of variance was performed on the data controlling for discipline, gender, acceptance-rejection, and all combinations of these independent variables. While the F value was not significant for any other one or combination of independent variables, the contributor's discipline was
significant in explaining the variance in the number of colleagues that contributors referred to:

**TABLE 14. NUMBER OF COLLEAGUES REFERRED TO BY CONTRIBUTOR'S DISCIPLINE, GENDER, AND MANUSCRIPT'S ACCEPTANCE OR REJECTION**

**DEPENDENT VARIABLE: NUMBER OF COLLEAGUES REFERRED TO**

\[ n = 857 \]

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>df</th>
<th>ss</th>
<th>F</th>
<th>( p &lt; F )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discipline</td>
<td>2</td>
<td>13.63</td>
<td>4.74</td>
<td>.0090(^a)</td>
</tr>
<tr>
<td>Gender</td>
<td>2</td>
<td>3.56</td>
<td>1.24</td>
<td>.2908</td>
</tr>
<tr>
<td>Acceptance/Rejection</td>
<td>1</td>
<td>1.68</td>
<td>1.17</td>
<td>.2806</td>
</tr>
<tr>
<td>Discipline and Gender</td>
<td>4</td>
<td>3.91</td>
<td>.68</td>
<td>.6067</td>
</tr>
<tr>
<td>Discipline and Acceptance/Rejection</td>
<td>2</td>
<td>4.64</td>
<td>1.61</td>
<td>.1998</td>
</tr>
<tr>
<td>Gender and Acceptance/Rejection</td>
<td>2</td>
<td>.91</td>
<td>.32</td>
<td>.7288</td>
</tr>
<tr>
<td>Discipline, Gender, and Acceptance/Rejection</td>
<td>4</td>
<td>2.42</td>
<td>.42</td>
<td>.7939</td>
</tr>
</tbody>
</table>

**Total Model** | 17 | 111.31 | 4.55 | \( p < .0001\)^a |

\(^a\) significant at \( p < .01 \)

The mean number of colleague references for accepted and rejected letters in the three disciplines show:
TABLE 15. MEAN NUMBER OF COLLEAGUE REFERENCES PER LETTER BY DISCIPLINE AND MANUSCRIPT ACCEPTANCE/REJECTION

<table>
<thead>
<tr>
<th>MEAN COLLEAGUE REFERENCES PER LETTER</th>
<th>ACCEPTED</th>
<th>REJECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>1.08</td>
<td>.36</td>
</tr>
<tr>
<td>Sociology</td>
<td>.86</td>
<td>.51</td>
</tr>
<tr>
<td>English</td>
<td>.23</td>
<td>.31</td>
</tr>
</tbody>
</table>

Thus, English scholars submitted research most isolatedly. Accepted astronomers were much more collegially oriented than rejected contributors in their field. Sociologists exhibited collegial references that showed a moderate relationship to rejection or acceptance.

Hypothesis II.A.: In a field that is paradigmatically hard, the greater should be the instances of colleagues referred to.

The hypothesis was confirmed; the data indicate that astronomers—representing a Biglan-typology "hard" paradigmatic field—do cite collegial relationships to a greater extent than soft-area scholars in English and sociology. Collegial references are least in English, nor does there appear the trend of successful contributors mentioning a greater number of colleagues—as was true of sociologists and astronomers. Rejected astronomy contributors appear as relative "isolates" in comparison with their counterparts whose manuscripts were accepted.
II.B. Co-Authorship

One category concerning collegial relationships that became apparent in distinguishing transmittal letters among the three disciplines was co-authorship. It was soon apparent that the extent of collaborating upon research differed in the physical and social sciences, and humanities fields. Evidence of co-authorship may have been present in several forms in the transmittal letter: (1) co-signatures listing each author's name; (2) single author submissions, mentioning co-authors in the body of the letter; (3) use of the pronoun "we," accompanied by carbon copies being sent to what were assumed to be co-authors.

When controlling for discipline, co-authorship was a significant discriminator of scholarly behavior. While sociologists co-authored at expected frequencies, the most significant differences were among astronomer and English contributors:

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi²</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>187</td>
<td>111</td>
<td>52.4</td>
<td>51%</td>
</tr>
<tr>
<td>Sociology</td>
<td>64</td>
<td>70</td>
<td>.5</td>
<td>27%</td>
</tr>
<tr>
<td>English</td>
<td>5</td>
<td>76</td>
<td>65.9</td>
<td>2%</td>
</tr>
<tr>
<td>Totals</td>
<td>256</td>
<td></td>
<td>chi²=169.29, df=2</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>p &lt; .0001</td>
<td></td>
</tr>
</tbody>
</table>
The sex of the contributor had no significant relationship to co-authorship:

**TABLE 17. CO-AUTHORSHIP BY CONTRIBUTOR'S GENDER**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi²</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>204</td>
<td>187</td>
<td>1.5</td>
<td>33%</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
<td>42</td>
<td>4.4</td>
<td>20%</td>
</tr>
<tr>
<td>Gender Undetermined</td>
<td>24</td>
<td>27</td>
<td>.4</td>
<td>26%</td>
</tr>
<tr>
<td>Totals</td>
<td>256</td>
<td></td>
<td>8.94, df=2</td>
<td>30%</td>
</tr>
</tbody>
</table>

\( \chi^2 > .01 \)

(not significant)

Again, acceptance or rejection of the enclosed manuscript was significant:

**TABLE 18. CO-AUTHORSHIP BY ACCEPTANCE OR REJECTION OF THE MANUSCRIPT**

<table>
<thead>
<tr>
<th>Manuscripts</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi²</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted</td>
<td>201</td>
<td>130</td>
<td>38.9</td>
<td>46%</td>
</tr>
<tr>
<td>Rejected</td>
<td>55</td>
<td>126</td>
<td>40.1</td>
<td>13%</td>
</tr>
<tr>
<td>Totals</td>
<td>256</td>
<td></td>
<td>112.53, df=1</td>
<td>30%</td>
</tr>
</tbody>
</table>

\( \chi^2 < .0001 \)

Percentages of occurrence are perhaps more useful in presenting these differences:
TABLE 19. CO-AUTHORSHIP BY CONTRIBUTOR'S DISCIPLINE AND ACCEPTANCE OR REJECTION OF THE MANUSCRIPT

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Accepted/Observed</th>
<th>Accepted/Total</th>
<th>Rejected/Observed</th>
<th>Rejected/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>183/327</td>
<td>56%</td>
<td>4/44</td>
<td>9%</td>
</tr>
<tr>
<td>Sociology</td>
<td>18/69</td>
<td>26%</td>
<td>46/164</td>
<td>28%</td>
</tr>
<tr>
<td>English</td>
<td>0/39</td>
<td>0%</td>
<td>5/214</td>
<td>2%</td>
</tr>
</tbody>
</table>

Hypothesis II.B.: In a field that is paradigmatically hard and non-life, the greater should be the instances of student sponsorship and collaboration.

There were such few allusions to student sponsorship in the data sources that the hypothesis was not confirmed. Although isolated instances of students being sponsored by mentors could be ascertained in astronomy and sociology, none were observed in English contributor letters.

Hypothesis II.C.: In a field that is paradigmatically hard, the greater should be the instances of co-authorship.

Co-authorship was significantly greater in astronomy than it was in English. Astronomy—characterized by Biglan as hard/non-life—exhibited a paradigmatic structure that was developed enough to allow colleagues to collaborate on shared research problems. Of the two paradigmatically soft fields, sociologists co-authored at the expected rate, while English contributors (representing soft/non-life Biglan typology)
almost never were able to share authorship of their research contributions with colleagues. Thus, the hypothesis was supported by the data.

The following table summarizes the extent of collegial references and research collaboration in the three disciplines studied:

TABLE 20. SUMMARY TABLE OF COLLEGIAL CHARACTERISTICS OF ASTRONOMERS, SOCIOLOGISTS, AND ENGLISH SCHOLARS

<table>
<thead>
<tr>
<th></th>
<th>EXTENT OF COLLEGIALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomer</td>
<td>High collegiality and collaboration.</td>
</tr>
<tr>
<td>Sociologist</td>
<td>Moderate collegiality and collaboration.</td>
</tr>
<tr>
<td>English Scholar</td>
<td>Isolate collegial and collaboration behavior.</td>
</tr>
</tbody>
</table>

III. WHAT CONTRIBUTORS REVEAL OF THEIR DISCIPLINES IN REFERRING TO THEIR RESEARCH

III.A. Letter Length

In one respect, the length of the transmittal letter serves as an indicator of all contributor behavior in the submission of research articles. Credentialling, collegial references, and contextual elaboration all require more verbiage than the perfunctory, "Enclosed is my triple-spaced manuscript, '____,' It has two charts and one table." To determine letter length, word counts were made for each letter, excluding the heading, inside address, and signature.
Using the Type III Sum of Squares factorial design, an analysis of variance was performed on the data, controlling for discipline, gender, acceptance-rejection, and all combinations of these independent variables. The F value was not significant for any one or combination of independent variables, except for the contributor's discipline (at \( p < .01 \)) and the combination of gender and acceptance/rejection:

TABLE 21. LETTER LENGTH BY CONTRIBUTOR'S DISCIPLINE, GENDER, AND MANUSCRIPT'S ACCEPTANCE OR REJECTION

<table>
<thead>
<tr>
<th>DEPENDENT VARIABLE: LETTER LENGTH</th>
<th>n = 857</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEPENDENT VARIABLE</td>
<td>df</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>Discipline</td>
<td>2</td>
</tr>
<tr>
<td>Gender</td>
<td>2</td>
</tr>
<tr>
<td>Acceptance/Rejection</td>
<td>1</td>
</tr>
<tr>
<td>Discipline and Gender</td>
<td>4</td>
</tr>
<tr>
<td>Discipline and Acceptance/Rejection</td>
<td>2</td>
</tr>
<tr>
<td>Gender and Acceptance/Rejection</td>
<td>2</td>
</tr>
<tr>
<td>Discipline, Gender, and Acceptance/Rejection</td>
<td>4</td>
</tr>
<tr>
<td>Total Model</td>
<td>17</td>
</tr>
</tbody>
</table>

<sup>a</sup>Significant at \( p < .01 \)

<sup>b</sup>Significant at \( p < .0001 \)
Mean number of words per letter for accepted and rejected letters in the three disciplines indicate:

<table>
<thead>
<tr>
<th>MEAN NUMBER OF WORDS PER LETTER BY CONTRIBUTOR'S DISCIPLINE AND ACCEPTANCE OR REJECTION OF MANUSCRIPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN NUMBER OF WORDS PER LETTER</td>
</tr>
<tr>
<td>ACCEPTED</td>
</tr>
<tr>
<td>Astronomy</td>
</tr>
<tr>
<td>Sociology</td>
</tr>
<tr>
<td>English</td>
</tr>
</tbody>
</table>

Hypothesis III.A.: In a paradigmatically hard field of study, less explication will be required to transmit the research article.

The hypothesis was statistically confirmed; astronomers—representing the only hard paradigmatic field—explicate less about their research than do sociologists or English scholars, representing soft paradigmatic fields of study. Acceptance or rejection has little to do with letter length in astronomy. However, in English and sociology, opposite trends are shown; sociologists whose manuscripts are accepted require more verbiage in the transmittal, whereas in English, letters accompanying rejected articles are considerably longer.
III.B. and C.: Contextual Elaboration

Along with credentialling, contextual elaboration is a conceptual category that lends itself to a presentation of disciplinary differences primarily by illustrative quotations from the letters themselves. Contextual elaboration is meant to denote any explication of the research being submitted—its meaning, rationale, timeliness, or applicability.

This category was particularly useful in portraying differences among sociology and English scholars in the ways they viewed their research. Two sub-categories emerged. **Meaning Elaboration** was most prevalent among English scholars and showed explication focusing on the intrinsic meaning or interpretation of the work itself, or the methodology used. **Utility Elaboration** was most representative of sociologists. There may have been mention of the particular audience for whom the work was intended, the applicability of the work, its appropriateness for this particular journal, or its "timeliness" as justification for its submission.

III.B. Meaning Elaboration

When controlling for discipline, meaning elaboration was found to be statistically significant:
TABLE 23: MEANING ELABORATION BY CONTRIBUTOR'S DISCIPLINE  
\( n = 857 \)

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi(^2)</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>53</td>
<td>110</td>
<td>29.5</td>
<td>14%</td>
</tr>
<tr>
<td>Sociology</td>
<td>93</td>
<td>69</td>
<td>8.3</td>
<td>39%</td>
</tr>
<tr>
<td>English</td>
<td>108</td>
<td>75</td>
<td>14.5</td>
<td>43%</td>
</tr>
<tr>
<td>Totals</td>
<td>254</td>
<td>chi(^2)=74.39, df=2</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

\( p < .0001 \)

The most pronounced differences were between English and astronomy. Sociologists exhibited this trait more at about expected frequencies.

The gender of contributor was not significant in discriminating this behavior.

TABLE 24. MEANING ELABORATION BY CONTRIBUTOR'S GENDER  
\( n = 857 \)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi(^2)</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>192</td>
<td>186</td>
<td>.2</td>
<td>31%</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>41</td>
<td>.2</td>
<td>32%</td>
</tr>
<tr>
<td>Gender Undetermined</td>
<td>18</td>
<td>27</td>
<td>3.0</td>
<td>20%</td>
</tr>
<tr>
<td>Totals</td>
<td>254</td>
<td>chi(^2)=4.80, df=2</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

\( p > .01 \)  
(not significant)
The acceptance/rejection status of the manuscript being submitted was significant:

TABLE 25. MEANING ELABORATION BY ACCEPTANCE OR REJECTION OF THE MANUSCRIPT

<table>
<thead>
<tr>
<th></th>
<th>OBSERVED</th>
<th>EXPECTED</th>
<th>CELL CHI²</th>
<th>% OBSERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted Manuscripts</td>
<td>77</td>
<td>129</td>
<td>8.98</td>
<td>18%</td>
</tr>
<tr>
<td>Rejected Manuscripts</td>
<td>177</td>
<td>125</td>
<td>21.6</td>
<td>42%</td>
</tr>
<tr>
<td>Totals</td>
<td>254</td>
<td></td>
<td>chi²=60.36, df=1</td>
<td>30%</td>
</tr>
</tbody>
</table>

p < .0001

Percentages of occurrence by discipline and acceptance or rejection of the manuscript follow:

TABLE 26. MEANING ELABORATION BY CONTRIBUTOR’S DISCIPLINE AND ACCEPTANCE OR REJECTION OF THE MANUSCRIPT

<table>
<thead>
<tr>
<th></th>
<th>ACCEPTED(OBSERVED/ TOTAL)</th>
<th>%</th>
<th>REJECTED(OBSERVED/ TOTAL)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>45/327</td>
<td>12%</td>
<td>8/44</td>
<td>18%</td>
</tr>
<tr>
<td>Sociology</td>
<td>22/69</td>
<td>32%</td>
<td>71/164</td>
<td>43%</td>
</tr>
<tr>
<td>English</td>
<td>10/39</td>
<td>26%</td>
<td>98/214</td>
<td>46%</td>
</tr>
</tbody>
</table>

Hypothesis III.B.: In a soft/non-life field of study, the contextual elaboration will take the form of meaning interpretation of the research.

This hypothesis was confirmed, since English—representing soft/non-life in the Biglan study—showed more meaning elaboration than the other disciplines. The acceptance of
the manuscript was also significant in explaining the behavior across disciplines, however; accepted letters showed less meaning elaboration in all three fields studied.

III.B.1. Originality As a Means of Meaning Elaboration

In the discipline of English, many contributors elaborated about the meaning of their submissions in terms of their originality or freshness of approach. In a field which is the most archival of the three disciplines studied, it may be difficult to write something "new" about Shakespeare or to find "untilled" or "virginal" areas of research, as one English scholar remarked.

Often, in explicating the research, the contributor notes, "I argue in it for a new approach to the narrator and to the function of the Prologue." In this instance, the implication is that the methodology may be "new." This second instance highlights new knowledge, rather than method. "In particular, it offers for the first time the evidence of the ___s and suggests an interpretation of ___'s intentions."

In several instances, the author alludes to a new discovery and to how that discovery was made: "It [the article] contains some of the new information I dug up in England and Scotland this summer while following the route of ____ [the author being studied]." The implications are nearly that of an archeological excavation. Similarly, discoveries can also be made in other locations: "In the course of my
research at the Huntington Library, I developed an interest in _____. I was surprised to discover that despite his high reputation among his contemporaries...relatively little has been written about him." This contributor voices his motivation of undertaking the research "with the hope of establishing more precisely his [the author being studied] place in English literary history."

Perhaps other literary scholars have simply overlooked an avenue of study: "I do not believe this last occurrence has ever been noted before. It stands as quite a tribute to ____ that his imitation of Milton deceived so many Milton devotees." In a similar vein: "While knowledge of and reliance on the work of [four modern literary scholars], and others made it possible for me to begin my study of the ____ in Thoreau and, indeed, elsewhere, none of their research covers the terrain mapped out here. But I have tried to show here what we didn't know, namely, that it was there in some degree all the time."

In a field where recency of findings is not a concern and where cumulative building upon prior research lacks priority, it remains a task for scholars to find voids in prior scholarship and to examine untitled passages and works as a milieu for fresh discoveries in the present. Often this emphasis on originality is coupled with self-evaluation:
You are no doubt right that the magnitude of a "breakthrough" is greatest in the mind of the breaker, least in the objective vision of referees. However, I believe that your colleagues will agree that the material in this essay is new, and that, if my method and conclusions are valid, it should have a discernable impact on ____ interpretation.

Similarly, "To my knowledge it is the first such study, and one of very few to even touch on ____'s poetry. The reaction to the study has been overwhelmingly gratifying."

III.B.2. Disciplinary Differences in Meaning Elaboration

Among astronomers, new discoveries are important, but they appear to represent more the products of what Kuhn calls "normal science," representing cumulative supplements to an already existing body of knowledge: "This paper reports the first observations of several transitions of molecules already well-known to exist in ____. It is our feeling that this new data provides an important addition to the existing body of knowledge concerning interstellar molecules and their excitation." Similarly, another astronomer stresses the accumulation process: "The numerical results we present in this second paper represent the beginning of a detailed treatment of ____. The results have an important bearing upon problems associated with ____." Or, the elaboration of the work may be important in that it provides an integration of prior work.
The intent of this work was to bring together the results of the most important observations of Comet ___ into a straight-forward interpretation of the physical process of this comet. The amount of material gathered on this object exceeds that of any other comet; but, the results have appeared piece-meal...This paper shows that the independent work can be brought together to form a comprehensive picture.

Thus, a new gestalt is stressed.

Sociologists were unique in explaining their works by stressing the methodology of their approaches. While English scholars were likely to present abstracts of their textual analyses of literary passages, sociologists elaborated how they analyzed the research topic. For example:

As an empirical study, the paper provides evidence which counters ___'s contention that ___ processes contradict ___. theory. This paper's theoretical inventions are not those of functionalism, however, but are closer to Weber and the work of Joseph Ben-David.

Similarly, another sociologist alludes to his method: "It uses techniques expanded by ___ in several issues of your journal to assess the fit of several models."

Too, there may be an emphasis, in regard to the research being submitted, to move the state of research in certain methodological directions: "In this context, I conclude by criticizing the instrumental-orientation assumed by current sociologists of the future, and proceed to outline a more appropriate strategy for sociologically anticipating the future." Another state-of-the-field commentary is
offered by this contributor:

The substance of this article is an attempt to move the direction of the literature on ______ from the field of psychology (which controls the orientation of definition) to that of a more substantial ______ reference point. What has been the accepted orientation of ______ thought does not seem to justify its continuation.

III.C. Utility Elaboration

A form of contextual elaboration found in all three disciplines, but most often in sociology, is the contributor’s expression of the work’s usefulness to some specified audience or toward achieving a particular goal. In explicating their work, scholars may have focused on the work’s potential audience, its heuristic value for future research, its timeliness, or its appropriateness in redressing an injustice created by others.

The presence of utility elaboration was significantly different according to the discipline of the contributor. It was most significant in explaining differences in verbal behavior among sociologists and astronomers. English scholars contextually elaborated about the utility of their work at approximately the expected frequency, as indicated in the following table:
TABLE 27. UTILITY ELABORATION BY CONTRIBUTOR'S DISCIPLINE
n = 857

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi^2</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>14</td>
<td>49</td>
<td>24.5</td>
<td>4%</td>
</tr>
<tr>
<td>Sociology</td>
<td>61</td>
<td>31</td>
<td>30.6</td>
<td>26%</td>
</tr>
<tr>
<td>English</td>
<td>37</td>
<td>33</td>
<td>.5</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>112</td>
<td></td>
<td>chi^2=64.01, df=2</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>p &lt; .0001</td>
<td></td>
</tr>
</tbody>
</table>

The gender of the contributor was not significant in explaining the absence or presence of utility elaboration:

TABLE 28. UTILITY ELABORATION BY CONTRIBUTOR'S GENDER
n = 857

<table>
<thead>
<tr>
<th>Gender</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi^2</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>83</td>
<td>82</td>
<td>.0</td>
<td>13%</td>
</tr>
<tr>
<td>Female</td>
<td>21</td>
<td>18</td>
<td>.4</td>
<td>15%</td>
</tr>
<tr>
<td>Gender Undetermined</td>
<td>8</td>
<td>12</td>
<td>1.3</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>112</td>
<td></td>
<td>chi^2=1.99, df=2</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>p &gt; .01</td>
<td>(not significant)</td>
</tr>
</tbody>
</table>

The acceptance status of the manuscript was significant, however:

TABLE 29. UTILITY ELABORATION BY ACCEPTANCE OR REJECTION OF THE MANUSCRIPT
n = 857

<table>
<thead>
<tr>
<th>Acceptance Status</th>
<th>Observed</th>
<th>Expected</th>
<th>Cell Chi^2</th>
<th>% Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted Manuscripts</td>
<td>27</td>
<td>57</td>
<td>15.7</td>
<td>6%</td>
</tr>
<tr>
<td>Rejected Manuscripts</td>
<td>85</td>
<td>55</td>
<td>16.2</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>112</td>
<td></td>
<td>chi^2=36.61, df=1</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>p &lt; .0001</td>
<td></td>
</tr>
</tbody>
</table>
Because of the unequal sample size of acceptance and rejection letters according to academic discipline, specific percentages are listed.

<table>
<thead>
<tr>
<th>TABLE 30. UTILITY ELABORATION BY CONTRIBUTOR'S DISCIPLINE AND ACCEPTANCE OR REJECTION OF THE MANUSCRIPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCEPTED(OBSERVED/TOTAL)</td>
</tr>
<tr>
<td>--------------------------</td>
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<tr>
<td>Astronomy</td>
</tr>
<tr>
<td>Sociology</td>
</tr>
<tr>
<td>English</td>
</tr>
</tbody>
</table>

Hypothesis III.C.: In a soft-life field of study, the contextual elaboration will take the form of projected utility of the research.

The findings confirmed that sociologists—representing a soft-life field of study—elaborated with greater frequency about the utility of their research than did their English and astronomer counterparts. The contributor's discipline was significant in accounting for this behavior.

III.C.1. Audience Specification

Scholars in both English and sociology elaborated upon the utility of their studies for specified audiences or a particular segment of the journal's readership. English scholars were more likely to indicate the work's utility for other scholars:
I have written this essay in the hope that the information will give the student of ____ something more to consider in relation to ____.

Another contributor notes:

Now that ____ scholars have begun to be receptive to treating ____ work using ____ legend, there should be a readership for an essay such as this among medievalists as well as those in the Victorian field and those in general who are attracted to Arthurian legend.

It was rare for the English scholar to stress a practical value for the intended audience: "I think the approach of ____ would give teachers a good handle for a classroom discussion of ____.

In contrast, sociology scholars specified utility for a more varied and practitioner-oriented audience: "It is my hope that this information can reach those people who are concerned with helping in the transition of the Ex-offender or Non-Traditional Student." Similarly, "I believe this manuscript would be of keen interest to the developers, funders, and participants involved in social action programs, particularly those programs which seek and receive federal support." Another sociologist observes that this model, "although designed to be especially useful to developing countries [is] also useful in the United States, particularly for minority groups." Thus research is envisioned by sociologists as written for "both the lay and knowledgeable" reader, as one contributor observed.
III.C.2.1 Redressing an Imbalance

Both sociologists and English scholars revealed an intended utility of their work to correct current misconceptions that existed about the topic. A sociologist explains: "It draws attention to a body of materials which—although largely ignored by sociologists until now—provides a useful data base for testing some of our theories." In English, a study may have been done for parallel reasons: "We were motivated to write the article by the conviction that published criticism of ___'s best known novel has generally not considered the work in the context of the corpus of ___'s writing or the ethical theory of the period. The enclosed article provides the corrective that we felt was needed."

In a study of the life of a famous sociologist, a researcher expounds: "The apprehension I have had for some time, that his work would be superficially sanctified after his death as it was superficially condemned during his lifetime, is increasingly being confirmed by the recent literature on him."

Neglect or inattention of a subject matter is at times a justification for research being undertaken: "I believe that the area of ___ is important in sociology, and that the 'analytic procedures' for making such comparison has to be a 'neglected area.' I hope that this paper can contribute to the understanding of sociologists working in this important area." In English, an author's writing may have been neglected by literary critics: "'____' has received very little
critical attention. This neglect constitutes a surprising oversight of one of ___'s most complex and beautiful short lyrics. I think this essay will be an important step toward redress of this inattention."

This latter contributor's elaboration is reminiscent of another of Frederick Crews' Pooh Perplex caricaturized scholars, Harvey C. Window, who writes:

> It is then with a sense of my own temerity—if not, indeed, of outright rashness—that I must assert that Ogle, Smythe, Bunker, and Wart have completely missed the point of Pooh...I find myself in the embarrassing position of being the only possessor of this key, and I am writing this essay only to alter such an unbalanced situation as quickly as possible. (1963, p. 4).

III.C.3. Heuristic Utility

Contributors in all three disciplines mentioned the heuristic worth of their contributions as being useful in stimulating further research. In astronomy, "We hope our paper will stimulate work on other modes of energy transport in the sun." In English, "This article will, I believe, stimulate further study of the rhetorical complexity of the '___'!" And in sociology, "There is a renaissance of practical interest in the processes and consequences of ___; although the topic in recent years appears to have been all but abandoned to the economists. Perhaps AJS could help to refocus attention from within our own discipline on an issue that was once one of its central concerns." Timelines of the study is also peripherally alluded to by this author.
III.C.4. Timeliness

Hypothesis III.D.: In a soft-life area of study, the contextual elaboration will take the form of "fashion" or timeliness.

While not enough instances of "timeliness" as an indicator were observed to substantiate this hypothesis, several sociologists expressed the utility of their contributions as related to the current "fashion" of a methodology or topic. For instance, "Lately the variable of sex has received much attention in sociological literature on women." The accompanying manuscript focused on sex as it related to deviance. Likewise, a scholar notes that his article's "major reference point is ____ with varied implications regarding other current issues, e.g., alternate life styles, divorce rate, etc." Finally, "since this research is of a timely nature I feel obligated to make the results of this study known. Hopefully, school districts and social scientists will be able to utilize findings from this study concerning the implementation of ____ procedures and policies." Time-references, when found in astronomy, had altogether different connotations, as in this letter accompanying an article about stellar observations: "Because of the prediction of an expanding nebulosity for this summer or fall an early date of publication would be appreciated." Here the implication is not of fashion-oriented research, but a concern for its immediate utility for stellar observers.
The following table presents a summary of the kinds of contextual elaboration that are extant with each disciplinary body of scholars:

**TABLE 31. SUMMARY OF CONTEXTUAL ELABORATION CHARACTERISTICS OF ASTRONOMERS, SOCIOLOGISTS, AND ENGLISH SCHOLARS**

<table>
<thead>
<tr>
<th>TYPE OF CONTEXTUAL ELABORATION</th>
<th>Astronomer</th>
<th>Sociologist</th>
<th>English Scholar</th>
</tr>
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**STYLISTIC AND RHETORICAL DIFFERENCES BY DISCIPLINE IN THE TRANSMITTAL OF RESEARCH**

Research has already been noted that provides evidence of physical scientists—by virtue of the agreed-upon norms for research in their field—being more terse and verbally economical in reporting their research (Biglan, Zuckerman and Merton, etc.). The findings of this study concerning letter length reiterate that stylistic difference between physical scientists and their counterparts in the social sciences and humanities. Yet, there are further rhetorical differences among scholars in each of the three disciplines as they transmit their research.
Jacob Bronowski (1965), as previously cited, has argued that "self-reference" is important in understanding comparative research styles of social scientists, physical scientists, and humanities scholars. In the physical sciences, machine-language and axiomatic expression can be used to describe complex problems. There is a mental arithmetic which can be utilized and expressed. In the social sciences—paradoxes result, ambiguities that occur when theory is attempted to be expressed axiomatically. (p. 131). "Self-references" are qualifications that delimit the logic of expression, thereby contradicting theory. In literature, notes Bronowski, self-reference is not ambiguous nor paradoxical, rather inevitable:

The work of art compels us...to look at the world with it, and to look through it into the mind of the maker. We cannot disassociate the work from its origin. It interests us only as it engages us, and asks us to see ourselves in the same world also (p. 134).

Literature, then, differs from physical science in that "we cannot replace it by an axiomatic system (p. 138)" and from social sciences in that, not even for the time being, can the mind "take in the information, sort out its ambiguities, and turn it into unambiguous instructions (p. 139)." He notes also that in literature, "the brain plays with the information without ever turning it into machine instruction (p. 128)."
Indeed, there is both a playfulness with language and a self-research mesh that is exhibited by English scholars as they transmit their research. There are bi-lingual allusions, often used in self-satire, such as "tuing deux oiseaux avec une pierre" or "mirabile dictu!" Another contributor, in referring to the plight of his article, refers to "the distillation of the flurry of correspondence that followed was that my manuscript could not be located." There is a sense of detachment and ability to laugh at oneself among English scholars that was absent in the sociology and astronomy letters:

Please forgive me for sending you a Xerox copy; I have not submitted the article anywhere else. My dog ate the better part of the original.

A former military man, expressing the bond between language and profession, laments that "at times I do wish I could direct at certain students the same rich language of frustration that provides such a joy to all in the army."

In English, following Bronowski, there is that form of expression that emulates what or about whom one is writing. One scholar expresses the hope that "in asking you to consider my article for publication that I won't remind you of the presumptuous literary characters that I write about." In an article about "riddles," the contributor expresses his thesis in riddle-like form:
My Thesis is that it's the function of riddles to bring us back to the obvious, to what's under our noses. _____'s riddle is the novel we hold in our hands.

Ironically, in a note about Polonius, Hamlet's long-winded character, the contributor apologizes, "Before I make the letter longer than the note, thank you for your time." Yet another instance of self-research identification is illustrated by: "I still pursue what I hope is not a will-o-the-wisp, the conclusive argument that overwhelms and devastates, the moral equivalent of ____ (the character about whom the contributor has written)."

English scholars may also project literary allusions to other colleagues or the PQ editor himself. A Shakespearean contributor mentions that "my understanding of the play and of the play-element in it should benefit greatly from your intellectual midwifery." A fellow classics scholar notes: "At any rate, I trust you with the ancients and trust my arguments...will be given careful scrutiny." A Chaucerian expresses that "I have to cut this short and give a lecture about the Wife of Bath, who always reminds me of ____ (a colleague)." In its extreme, this behavior allows a contributor to completely empathize with a fictional character, hoping to "rescue the woman from the generally negative responses she has elicited from critics."
RHETORICAL STYLE OF SOCIOLOGISTS

Sociologists' letters of transmittal are unique in their ambiguity of language and fuzziness of diction. In explicating their work, parenthetical expressions, qualifiers, and modifications of prior statements abound:

I was able to clarify...by extracting his underlying model...which I have not seen identified or stipulated...such a model was initiated...Referred not to a..., but to a...Our real concern was not, however...but that. My own inclination is that...

Sociologists may indicate what their research is not, as a means of explaining it: "The study was not done in a traditional manner...the paper is not an ethnography." There is a predominance of illustration by example in describing one's research: i.e.'s and e.g.'s. In many cases, the use of quotation marks around terms and concepts has the effect of indicating that the contributor is using ideas in a special sense that his or her community of scholars may need to have defined. Original diction coinages may occur, as in "what I call ____." But the predominance of rhetoric is exemplified by numerous instances of "perhaps," "that is to say," "it does seem to me," "might," and "Frankly, I don't know whether." In a field where commonality of method and research paradigms are questionable, the sociologist's rhetoric mirrors not only an attempt to define and clarify but also a vagueness and ambiguity of diction in the explication of research.
Ravetz notes that the language of research in immature fields of study will be expressed in aphorisms and that research materials will consist of "intuitive generalities" and "insecure theoretical speculations masquerading as fundamental explanations (p. 368)."

**RHETORICAL STYLE OF ASTRONOMERS**

The astronomer's rhetorical style is terse, concrete, and often imperative in tone. It lacks much of the self-reference and introspective qualities of English scholars and the obtuseness of sociologists. When rhetorical elaboration does occur, it is typified by:

Hence I simply called this afternoon to thank him for his quick response, and to request that he now forward our manuscript and its duplicate copies to you—which indeed his secretary probably managed to do already this afternoon.

Most sentences in the letters are active voice, and they are expressed in a straightforward subject-verb-object pattern: "Enclosed please find" or "I hope that you will find." One has the effect of urgency implied, as in "Perhaps you should quickly ask him yourself," or "you cannot justly complain about its length." In a field where common terminology exists in the definition of research problems, language emerges as concrete and denotative, rather than connotative. Ravetz (1971) notes that language is an important tool in the hard sciences, especially since such "formal languages are not merely a translation of the vernacular. They provide power
to the arguments...and also impose a precision on the objects of the arguments (p. 89)."

SUMMARY

The findings reflected in the conceptual categories of credentialed, institutional credentialling, colleagues referred to, co-authorship and contextual elaboration all help define basic differences in contributors' attitudes, values, and motivations as they submit their manuscripts for evaluation and publication. That these differences relate to the normative methodologies for doing research and the structure of knowledge in contributors' respective disciplines will be discussed in the ensuing chapter.
CHAPTER V: ANALYSIS OF THE FINDINGS

The findings of this study indicate that the transmittal letter is fertile ground for observing differences by discipline in the ways contributors view themselves, their colleagues, and their research contributions. Certain distinguishing categories and indicators were formulated through a comparative analysis of the data sources; most of these indicators showed statistical significance as to their relationship to academic discipline. Content analysis helped provide illustrative distinctions whereby the effect or direction of the message content and style could be fathomed. That differences exist in the transmittal of research reports by social scientists, physical scientists, and humanities scholars has been shown; this analysis seeks to establish a link-age between the findings and the overall question for the dissertation: What do scholars in three diverse discipline—sociology, English, and astronomy—reveal about the comparative norms for knowledge development in their respective fields through the way they transmit research for publication.

Other scholars (Pfeffer, Yoels, Crane, Beyer) have shown that particularism—the application of criteria of
adequacy extraneous to the research itself—is more prevalent in the judgment and evaluation of research in the social sciences and humanities than in the physical sciences. Relationships between the lack of agreed-upon criteria for judgment in a given field and the observed editing and refereeing processes have also been established. Prior studies have shown evidence of editorial judgment being related to institutional and methodological issues, particularly in paradigmatically soft fields of study. Generally, prior research indicates that scholars—as a function of their discipline—view themselves differently in relationship to others and to their research. The findings of this study reflect these differences, especially in the absence or presence of what Orr (1970) terms "promoting behavior," advancing one's own ideas, projects, career, or reputation in the process of submitting research. He notes—without establishing relationships among fields of study—that scholars' output behavior may promote their efforts by "reinforcing behavior," which might include attempts to improve one's chances of success by citing one's prior contributions or giving abstracts of one's own work. The letter of transmittal showed evidence through "credentialling" and "institutional credentialling" that scholars exhibit various kinds of promoting behavior relative to their respective fields of study.

The findings indicate differences by discipline in scholars' social connectedness. Biglan (1973b) showed that
hard-area scholars co-authored more, sharing their research with others to a greater extent because of the common base of knowledge extant; the lack of a mutually understood methodology and criteria of judging research adequacy resulted in soft-field scholars preferring to undertake research alone or idiosyncratically. Transmittal letters—providing indicators of "collegiality" and "co-authorship" as well as student relationships—mirrored this relationship between field of study and research activity.

Finally, how the contributor describes his or her own work reflects extensively upon the field of study represented. It is not surprising that English scholars dwelt more upon their past performances as credence for undertaking the research topic or that they stressed the freshness and originality of treatment. Price (1964) has noted that the structure of English is the most archival of the three fields studied, and that the impetus for much research is drawn from 10-20 years prior, as compared with the cumulative growth based upon recency of previous research in a hard field like astronomy. Too, Hagstrom (1965) had noticed "timeliness" as being pertinent in the research motivations of social scientists, and the transmittal letters indicate that current trends and methodologies influence the ways in which sociologists view their contributions. Too, sociologists, emphasizing the life concerns of their discipline, showed concerns related to the utility and applicability of what their studies could
provide. Biglan (1973b) noted the amount of verbiage needed to present research findings by discipline; his hypothesis was that hard-area scholars required less space to present research, since there was a shared language and commonality of research paradigms. In the transmittal of research, English and sociology contributors required considerably more words in the form of elaboration about the study. Hence, "letter length," "utility elaboration," and "meaning elaboration" as conceptual categories provided illustrative representations of differing transmittal behavior as it related to discipline.

Following historians of science, these transmittal behavior differences by discipline relate to the structure of knowledge in physical sciences, social sciences, and humanities. Kuhn (1970) describes that students in the physical sciences learn by doing exemplary problems. A student in this area views "situations that confront him as a scientist in the same gestalt as other members of his specialists' group...He has meanwhile assimilated a time-tested and group-licensed way of seeing (p. 189)." Freshness of approach or originality is not important to the physical scientist in the way it is for the English scholar: "Because the unit of scientific achievement is the solved problem and because the group knows well which problems have already been solved, few scientists will easily be persuaded to adopt a viewpoint that again opens to question many problems that had previously been solved...Novelty for its own sake is not a
desideratum in the sciences as it is in so many other creative fields (p. 169).” In this study, English scholars voiced the most concern about the originality and freshness of their research.

Ravetz (1971) in contrasting mature fields of study with immature fields, classifies sociology as a cliché-science. He notes that in these areas, “Value is determined by the degree to which a problem-situation is central to the experience of the audience; and adequacy by the success in offering reassurance and the promise of understanding (p. 388).” Indeed, sociologists in this study showed a preponderance of audience-specifications and an elaboration of the research's utility.

For the purposes of depicting disciplinary differences as scholars transmit their research, stereotypic portraits of contributor letters will be presented, incorporating, wherever relevant, an analysis of how verbal behavior relates to disciplinary norms and knowledge development. In describing the contributor, "he" is used in the stereotypic sense, since most research contributors in all three fields were male (For astronomy, "we" is used, since that group of letters was primarily co-authored.). Each portrayal is designed to represent the scholar’s relationship to his discipline through his references to his work, his colleagues, and to himself.
The astronomy contributors' research transmittal letter was often antipolar to their counterpart's letter in sociology or English. Differences within each conceptual category were usually most drastic between astronomers and contributors from the other two disciplines.

Since, using Biglan's typology, astronomy shares "non-life" concerns with English and "pure" concerns with both English and sociology, its "hardness" is the sole distinguishing characteristic from the other two fields of study. The astronomers were likely to elaborate least about their research. Their letter indicated a simple transmittal, usually "Enclosed is a triple-spaced manuscript entitled '____.' It has one chart and three tables. Page charges will be paid by ____ University." The length of the letter was shortest of the three fields studied. There seemed implicit an assumption that the research stood as understandable and relevant by itself, without explanation. There was no special vocabulary to be defined, no methodology to be spelled out.

Kuhn (1970) notes that in hard sciences, "the scientist can begin his research where it leaves off and thus concentrate exclusively upon the subtlest and most esoteric aspects of the natural phenomena that concern his group (p. 20)." Similarly, in discussing "mature" fields, such as astronomy, Jerome Ravetz indicates a rationale for such
One sign of a field having maturity is a certain underlying stability...and the particular judgments of adequacy which are made do not seem to depend on anything but common sense. In these instances the very existence of criteria can be overlooked (p. 159).

The astronomers rarely indicated any references to their status within their institutions. The letterhead usually indicated the university name and department, but their academic titles were significant in their absence from the letter's signature. In comparison to the sociologist in particular, the astronomers both in government and university settings chose not to identify their particular institutional status or affiliations.

The astronomers typically defined their research in terms of with whom they completed it. These significant others were frequently co-authors, often as many as three or four per manuscript. In fact, most astronomers exhibited, through co-signatures or textual allusions, that they were submitting collaborative research.

Partly as a result of extensive co-authorship allusions, astronomer contributors revealed the greatest social connectedness of all three fields by the magnitude of their collegial references. Additionally, other colleagues were mentioned. The names of those whose works the present study was building upon were included, with indications perhaps that two articles could appear together, in the same issue,
because of their inter-relationship. In cases where findings differed from those of other colleagues, contributors were likely to suggest that the journal serve as a forum, helping to present both sides of the puzzle. Perhaps the present unpublished report had already been shared with scholars who had previously published contradictory findings. Interesting, too, was that astronomers whose letters accompanied manuscripts that were accepted showed considerably more social-connectedness than those whose studies were rejected (accepted co-authorships-56%, rejected-9%). The mean number of colleagues mentioned per letter was also markedly different (acceptances-1.08, rejections-.36). Of the three fields studied, these variations were most drastic in astronomy, indicating the importance of collegiality in the successful completion of research and portraying the unsuccessful astronomy scholar as a relative isolate. Astronomy contributors, because of the compactness of their field and its shared knowledge base, seemed able—in a way that English and sociology contributors were not—to share scholarly effort with greater numbers of their community, as well as to seek out and identify colleagues who were actively working on similar research problems.

Astronomers in their letter were also pre-disposed to mentioning referees in a variety of contexts. Suggestions to the editor were prevalent, particularly concerning which particular referees would be qualified and knowledgeable about
the study being submitted. Intimate details about referees were known by astronomy contributors: "Professor ____ is ill" or "Dr. Smith is on vacation and unable to undertake a paper for refereeing." These allusions indicate close personal inter-relationships among research colleagues.

Hagstrom (1965) had observed that in paradigmatically hard fields, competition would be greater because of the currency and replicability of the ongoing research. J.D. Watson's *The Double Helix* reinforces the elements of competition in hard science fields and the dangers of being anticipated in the presentation of one's findings. Astronomers in transmittal letters were more likely than scholars in other fields to mention potential or past problems of this ilk. Separate instances of these concerns included: (1) requesting the paper not be refereed by certain others with whom personal controversies had erupted in the past, apart from the research itself; (2) requesting the current work not be refereed by one, who in the past had "stolen" these contributors' findings and published them himself; and (3) lamentation of not having been cited by a colleague for whom substantial input was furnished, either as a referee or colleague. In one instance, no fewer than eight letters were exchanged with the editor of *Astrophysical Journal* from two sets of contributors; the concern was whose article should appear first, since the findings were identical. Charges and counter-charges were hurled concerning theft of information and betrayals of confidence. The
following are quotes from this exchange:

Smith: The question that seems important to us and which Jones ignores is the priority on our basic idea for ____. It seems to us that we were first to propose that _____. Jones has referred to our lengthy conversations in ____. Does he deny that I then told him of the calculations we were doing? It seems to us that Jones should be required to state that he is using our general picture of _____.

Jones: (to the editor) I am not sure just which version of their Paper II you have now decided to accept 'without change.' This last point is crucial because I had presumed from your letter and its 'Mandatory requirement' that Smith 'include a suitable acknowledgment to [me]' that there at last you had struck upon a decent formula for letting our two shoplifters or absent-minded shoppers from last September off with a mild rap on the knuckles.

Smith: I assure you that if only credit for an idea were at stake I would not have approached you at all. But the situation is far more sinister. As you must be aware, stories of our difficulties with Jones have spread widely. But it is not known generally that the argument is over priority for a theoretical process. Rather the stories allege that ____ and I have stolen the idea that _____. In allowing Jones and ____ to publish their paper without due acknowledgment to our work, the Astrophysical Journal is legitimizing these slanderous accounts which are severely damaging to ____'s career. It seems to me that the Ap.J. has allowed Jones to delay the publication of our work while expediting the publication of his own, despite the considered opinions of men of very sound judgment.

An interesting commentary about the information exchange process in astronomy as it relates to competition and conflict is offered in a letter to the editor by Jones' co-author:
I have tried to stay out of this one but will now respond to your request as helpfully as I can.
Secondly, there is really only one issue that has to do with possible ethical transgressions influencing the correct assignments of credit for the pre-emption of ideas. It is my view that such credit is an unworthy fetish and that its worship and ignoble pursuit is ultimately unrewarding—and even disadvantageous. Were it not for the fact that this truth is already widely understood, we would be deluged by people coming out of the woodwork and laying claims of priority against every thought that has ever been expressed. The fact is that there is precious little justification for such practices in establishing credentials; we all owe much, too much, to our predecessors and contemporary associates to be smug concerning the uniqueness and extraordinary importance of our own contributions. I have been working on and puzzling over _____ ever since someone brought them to my attention—someone to whom I owe a debt that is unpayable because I have forgotten who he was!

The problem is that in the present instance Jones' highly open, aggressive, ritualized, and documented mechanisms for information exchange are involved. The hard facts consequently available clearly support Jones' position, and it is a great shame that the opportunity for a wise and graceful resolution of the situation was not taken at an early stage.

Such disputes are taxing for the editor, who must assume final arbitrator status. In separate letters to the contestants, he indicates: "I completely agree with you in lamenting this activity of grown men squabbling over credits, as though it would hurt them to give an unwarranted credit." Later, "Will this never end?" And finally, after a compromise had been achieved and both papers were scheduled to appear in print: "There comes a time when I and the referee, at least, are tired of the endless correspondence regarding one paper and the unwillingness of the authors to make certain changes,
Another astronomer, who had shared his research with a colleague and met with unfavorable evaluation, expresses a fear of being undermined as he transmits his research to AJ:

"I'm afraid he's going to use his (considerable) influence to blackball my paper in the journal. Judging from his papers he is given to deceptions, he was not telling the truth when he said he had not looked at my work, and he may try to use his influence to prevent my work from being published." The contributor then threatens:

IF it turns out that he is trying to undermine my work, then I will proceed in the following fashion:

(1) learn his entire field; this should take me about one week;
(2) dissect (sic) everything he has ever published;
(3) distribute same in bulk quantity to every astronomy department in the country!

In responding to this contributor, the editor of AJ, in rejecting the manuscript, provides an excellent overview of knowledge development in astronomy:

In science things are not considered true simply because someone states that they are. Even the best or most successful scientists will not be able to convince others of the validity of any specific idea without a convincing proof. The required proofs consist of a logical sequence of reasoning, employing physical and mathematical techniques that have been extensively tested previously, resting on certain basic assumptions that seem to fit the physical work and that are clearly expressed. The aim of science is to understand the world around us and its history and future. If a physical fact is predicted but the mathematics does not explain why it is so, we have not gained in our understanding of the real world. A secondary test is to demonstrate that other theories are not successful in
predicting the fact, because often different ways of looking at things may converge on the same conclusion in certain instances, but not in others.

The editor's response is reminiscent of Kuhn's (1970) remarks about research paradigms and the necessity to work within them: "To reject one paradigm without simultaneously substituting another is to reject science itself. That act reflects not on the paradigm but on the man. Inevitably he will be seen by his colleagues as 'the carpenter who blames his tools' (p. 79)." Nevertheless, in a field where social connectedness is great, there exists also the concomitant danger of conflict, competition, and ethical dispute.

Astronomy contributors were unique among scholars studied, then, in their economy of transmittal, in their lack of credentialling or elaboration about the significance of their work. They viewed their research as it was influenced, co-authored, or to be judged within their discipline. In these respects, they mirrored differences in the knowledge structure and paradigmatic state of research for their field, as contrasted with scholars in English and sociology.

**The Sociologist: Institutional Relationships and Utility Elaboration**

Whereas astronomers reveal extensive social connectedness, the sociologist exhibits less co-authorship (27%) and fewer collegial references. The sociologist in transmitting his research is stereotypically concerned with establishing his research credibility by citing institutional status and also
envisions the potential benefits of the work in its practical utility for others.

Smart and Elton (1975), in testing the Biglan typology, found that life-area department chairpersons showed greater interest in and participation in departmental and institutional activities. They were more "local" than "cosmopolitan" in orientation. Sociology represented the only "life" area studied, and the findings of institutional credentialling transmittal behavior being greatest in sociology speaks to this previous research.

The sociologist defined his contribution in relation to his current place in the institution significantly more than did the astronomer or English scholar. Titles indicating departmental status, like "Associate Professor" or "Department Chairperson" were normative in the signature of sociology letters. The effect of this inclusion of institutional status by the contributor was to introduce a particularistic element to the transmittal, peripheral to the research being transmitted.

The sociologist was also prone to refer to the "timeliness" of his research. Perhaps the methodology may have been au courant or there had been a renaissance of interest in the sociology of deviance or organizational theory. Hagstrom (1973) notes that "fashion" comes to bear in the choice and practice of social science research, because of
its non-cumulative research base and the existence of methodological schools of thought.

In elaborating about his work, the sociologist often specified his intended audience, most usually practitioner-groups: teachers, prison reform advocates, or civil rights organizers, as examples. He saw his work as valuable within the context of its immediacy and practicality in solving or explaining societal problems. Biglan had reported that life-area faculty have more exogenous influences on their research, and thus this external audience concern in transmitting research seems in keeping with sociology as a soft-life field of study.

The sociologist also mentions colleagues as advocates for his work, sponsors, or those who have made favorable evaluations of it. Yet, there is not the extensive credentialling present that is shown by English scholars. The sociologist defines himself primarily within the confines of his institution and department and justifies his research in terms of its consumption and application by a specified audience. For him, journal publication seems envisioned as a vehicle for advancement within his institution and in a didactic role for the stimulation of consumer adoption and use.
The English scholar is less institutionally oriented than his counterpart in sociology. He does engage in introducing particularistic elements into the transmittal of research, being the most profuse and varied of credentiallors. The English scholar views his work as a product of his past accomplishments and achievements. Furthermore, he sees the study being transmitted as its own raison d'etre. Unlike the astronomer, however, he describes meticulously the intrinsic meaning and puzzle-solving components of this work.

Price (1964) has already noted that the humanities are the most archival of fields, growing not layer by layer and accumulating new knowledge based on a recent and immediate front of research data. Rather, knowledge of the ages is stored, digested, and regurgitated in "new" and interesting re-combinations. The English scholar, in writing about his work, seems most concerned about originality, freshness, and discovering a key literary interpretation that has eluded critics over the years. Or, past erroneous readings need to be redressed. It is cogent for this scholar to find fertile yet untilled ground to work, as one scholar observed.

English, as non-life and soft, should exhibit less collegiality in the production of research and in projecting its utility, according to prior studies. English contributors were the least likely to indicate co-authorship in their
transmittal of research. They mentioned the fewest number of colleagues per letter, when compared to sociologists and astronomers. When colleagues were mentioned, they were used as name-drops or sponsors, in providing self-evaluation of their work. The mention of one's mentor was important, especially as it helped define a scholar's subject matter qualifications.

In keeping with the archival nature of his field and its paradigmatic softness, the English scholar focused on past accomplishments and relationships to establish the credibility of his manuscript. A list of past publications might be included or past honors and presentations rehearsed. One's current research is viewed as a product of what one has done in the past. There is no fashion at play, and research expertise is dictated by what has preceded. The English scholar's graduate study is part of this accumulated apprenticeship; often citing his doctoral dissertation topic and his coursework tutelage, he established the background needed to undertake current topics. His past institutional affiliation is often more important than his present one, and "institutional affiliation" differs from the sociologist's focus on academic rank. For the English contributor, the Ph.D. credential and the institution which granted it are more important allusions as credentialling behavior.
The English contributor's present work is past-oriented, both in its inception and in his relationship and qualifications to be presenting it. This scholar also expresses the need to explicate his methodology and nuances of interpretations, defending himself from critics of other schools of criticism. If an audience for his research is specified, its consumption is intended for the body of scholars for whom new literary insights are deemed important.

Summary and Implications for Further Research

The transmittal letters from contributors of manuscripts to research journals in the three fields studied—sociology, as a social science; astronomy, as a physical science; and English, as a humanities—revealed normative differences in their content that were shown to be directly rated to the paradigmatic structure of knowledge in the discipline. In the explication of these differences, the conceptual categories of "credentialling," "institutional credentialling," "collegiality," "utility elaboration," and "meaning elaboration" had relevance in portraying the effect of the communication differences. Sociologists were characterized by their focus on institutional relationships in credentialling their research outputs and in elaborating upon the research product's utility for a specified audience. English scholars exhibited a variety of credentialling behavior, but stressed the past as precedent for producing current research; they elaborated extensively
about the intrinsic meaning and interpretation of their findings. Astronomers, showing the fewest particularistic references in their letters, demonstrated extensive collegial influences and a co-authorship style of research production. Many of the findings of this study are consistent with those of prior researchers who have studied the editorial judgment process as it relates to the structure of knowledge in the social and physical sciences, and humanities.

Hopefully, the data sources for this dissertation—letters of transmittal written by contributors to editors as research is channeled from the private to the public realm of the discipline—could be utilized for further study. A content analysis of such unobtrusively obtained data sources as these reveals quite different indicators of the research process than would survey research with editors and contributors. Several interesting research questions are suggested by the results of this study:

1. How does the transmittal behavior of contributors impact upon editors and referees as they decide what manuscripts will be published?

2. How does the presence or absence of anonymous refereeing relate to the kinds and extent of contributor transmittal behavior?

3. Are there relationships between the contributors' institutional size and prestige which relate to transmittal behavior?
4. What kinds of transmittal behavior might occur in applied social and physical science disciplines, such as education and engineering?

In conducting this research, other data sources were observed and collected that seemed potentially rich in explaining differences by discipline in the evaluation and judgment of research articles. Referees' and editors' comments could be scrutinized, both those intended to be seen by the contributor and those which were only for in-house consumption. How do editors and referees view their roles in facilitating research publication and disciplinary knowledge development as they express their evaluation and constructive criticism of manuscripts?

Moreover, an examination of follow-up letters to editors by contributors after initial editorial reaction could be illuminating. In what ways do scholars in different disciplines respond to rejection, suggestions for revision, and acceptance? What are their reactions to the editorial decision-making process as they rethink and revise their contributions? These would be interesting milieus within which to explore the comparative values, attitudes, and behaviors of scholars as they relate to diverse academic fields of study.
APPENDIX A

Criteria and Definition of Terms for Inter-rater Reliability Analysis

I. **Letter length**—Count only those words in the body of the letter (between the salutation and the complementary close). Count also any words appearing in a post-script or note. Count numbers as a single word each time that they appear. Do not count words in the heading, inside address, salutation, complementary close, or enclosures sections.

II. **Credentialling**—Credentialling is a promoting behavior on the part of the contributor whereby he or she cites his or her own contributions or status in order to achieve a desired end. Credentialling may take the form of:

A. citing one's prior publications
B. mentioning honors received
C. *name-dropping*; mentioning colleagues who have been influential in or who may be sponsoring the work. Note: This category excludes citations of others' previously published work.
D. personal "asides" to the editors or his/her colleagues
E. any mention of past accomplishments or status roles
F. where one took one's degree or with whom one studied
G. mention of one's terminal degree, i.e. M.A. or Ph.D.
H. each letter should be determined to exhibit credentialling or to not exhibit it.
I. Most of this type of credentialling will occur in the body of the letter; in the case of #G the signature should also be scrutinized.

III. **Institutional Credentialling**—A separate category from credentialling, this dimension refers only to the signature of the letter of transmittal.
A. Citing one's organizational title within the institution or university, ex.: Assistant Professor of English, Senior Research Scientist, Graduate Associate.

B. Count only whether a letter does or does not exhibit this dimension.

C. This count is separate from "credentialling" so that any given letter may exhibit both, neither, or either credentialling and institutional credentialling.

IV. Co-authorship—any evidence in the letter itself—the body, the signature, or the enclosures sections that indicates dual or multiple authorship.

A. Note: The pronoun "we" should be taken to indicate joint authorship. In this case, names need not be mentioned.

B. Note: Check Encl. section for carbon copies which may have been sent to co-authors.

C. Either a letter has co-authorship or does not; numbers of co-authors are not counted here.

V. Colleagues Referred To—Here, the number of different colleagues that are referred to is important to count.

A. Count the number of different colleagues mentioned per letter.

VI. Contextual Elaboration—any explication of the work—its meaning, rationale, timeliness, or applicability to the problem-state of the field.

A. Either a letter does or does not exhibit:

1. Meaning Interpretation—explication focusing on the intrinsic meaning or interpretation of the work itself, the methodology used, etc. Deals with the subject matter itself.

2. Applicability/Utility—mention of the particular audience for whom the work is intended; the projected utility, applicability, or "timeliness" for other colleagues in the field or the appropriateness for this particular journal.
VI. B. Note: A given letter may exhibit neither, both, or either of these two dimensions.

C. Note: This dimension does not refer to elaboration of the format of the work, I.E., "double-spaced manuscript with six charts and four tables."
LIST OF REFERENCES


LIST OF REFERENCES (Cont'd.)


LIST OF REFERENCES (Cont'd.)


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