FACULTY-DOCTORAL STUDENT COLLABORATIONS

Building Relationships Around Tasks:
Psychological Contracts in Faculty-Doctoral Student Collaborations

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Abstract

Psychological contracts theory is applied to the study of faculty-doctoral student collaborations. Through a survey of 170 doctoral students, four types of psychological contracts are investigated. The quality of collaboration and frequency of meetings are found to differ significantly across these contract types. In addition, quality of collaboration and meeting frequency varied significantly across collaborations using different research methods (e.g., laboratory work, theory building) and disciplinary paradigms (i.e., high and low consensus). A comparison sample of 46 faculty from the same departments supported several trends observed in the doctoral student data.
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"Choose a mentor carefully. The content of the relationship may be more important than the substantive area of research."

"Ensure from the start that you are not treated as a research assistant."

"...for long-term projects, personal compatibility is equally important as faculty prestige."

(Doctoral students' advice on choosing a faculty advisor)

The faculty-doctoral student relationship has been described as a "form of cooperation sustained by the shadow of the future" (Axelrod, 1984, quoted by Kramer, 1995). Graduate students progressing toward a doctoral degree depend on their faculty advisors for critical resources, including financial support, opportunities to coauthor scholarly papers, and approval of their dissertation research. The isolated nature of doctoral training is often a source of stress for students (Bowen & Rudenstine, 1992), creating greater need for faculty support and involvement. These dependencies occur in a highly evaluative organizational setting. Given such intense dependence, it is hardly surprising that concerns about the quality and nature of faculty-student relationships arise (Kramer, 1995) and give rise to the advice quoted above. Surprisingly little research exists on the dynamics of these relationships, although active research collaboration with
faculty early in a doctoral program has been identified as a means of promoting student socialization (Bauer & Green, 1994).

The present study focuses on the dynamics of research collaborations. It extends the psychological contracts framework typically applied in the context of employment (Rousseau, 1995) to help explain the beliefs doctoral students have regarding the nature of the collaborative relationship and its success. These beliefs are compared to those of a sample of faculty from the same departments. From the student perspective, this study then investigates the extent to which the type of psychological contract affects the quality of the collaboration. Differences related to research type (e.g., laboratory, field) and disciplinary paradigms are also examined.

Psychological Contracts Framework Applied to Faculty-Student Relations

Doctoral student education traditionally has followed an apprenticeship model which the relationship between student and faculty member forms the basis of the student's training (Bowen & Rudenstine, 1992). This relationship is typically built around research-related tasks where, in addition to coursework, students participate in research activities such as developing theories, gathering and analyzing data, and writing reports, typically with support from and often active collaboration with faculty. Research collaborations between students and faculty can involve creation of an understanding between the parties regarding their mutual obligations. How each party perceives these mutual obligations can be referred to as a "psychological contract," that is, an individual's beliefs regarding a mutual exchange agreement with another party (Rousseau, 1995).

Four forms of psychological contract have been used to characterize employment relationships (Rousseau, 1995, p. 98, Figure 1). These forms are based on two key features of exchange agreements: the arrangement's anticipated duration and the specificity of the connection between performance and rewards. The duration of a collaboration depends on its focus; a finite
task may be of limited duration (e.g., executing a single laboratory study), while an on-going interaction has the potential to continue into the long term (e.g., developing a research program comprised of multiple studies). Long-term arrangements are usually open-ended and have no specified termination date, even in the case of student-advisor relationships, which may be formally terminated upon graduation but have the potential to continue over the lifespans of the individuals involved. Although exchange relationships involve contributions by both parties, mentoring arrangements typically have only loose specifications regarding the contributions of each party, and the mentee may sometimes have no particular obligations at all (Kram, 1995). However, in collaborations focused on a central task such as project completion, important contributions (and the rewards associated with them) may be well articulated.

The four forms of psychological contract (Rousseau, 1995) include:

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Insert Figure 1 about here

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Transactional--of limited duration with specified performance requirements (e.g., working on a short-term project).

Relational--open-ended arrangement with incomplete or ambiguous performance requirements (e.g., mentoring).

Balanced--open-ended relationship with well-specified performance requirements that are subject to change over time (e.g., collaboration on successive projects with clearly defined products and timetables).

Transitional or unstable--no commitments regarding a future relationship along with no explicit performance requirements.

Previous research has found that relational contracts engender high commitment to the
relationship (Rousseau, 1990) and are more easily violated due to the ambiguity of their expectations (e.g., among expatriates, Guzzo, Noonan & Elron, 1994). However, relational contracts are characterized by greater continuity of the relationship in the aftermath of a contract violation than are violated transactional contracts (e.g., among MBA alumni, Robinson & Rousseau, 1994). Although both relational and balanced contracts are positively correlated with satisfaction, balanced contracts are associated with greater acceptance of change than are relational contracts (Rousseau & Tijoriwala, 1996). The latter study found that transactional contracts were uncorrelated with satisfaction.

The present study extends this psychological contract framework to academic settings based upon the pertinence of the framework's key features (performance specificity and time frame) to current trends in doctoral education (Bowen & Rudenstine, 1992). In the context of the faculty-doctoral student relationship, we predict that students would find either balanced and relational contracts to be consistent with their expectations of an appropriate relationship for doctoral work and have more positive attitudes toward these relationships. Conversely, we expect less favorable attitudes toward transactional and transitional arrangements. In the context of the faculty-doctoral student relationship, we believe the form the collaboration's psychological contract takes will cause students to perceive their relationships differently. Specifically, we hypothesize that the relationship will be perceived more favorably when the psychological contract is balanced or relational than when it is transactional or transitional (Hypothesis 1). Similarly, we expect that student beliefs regarding the future of the faculty-student relationship will differ across contract types. Students with balanced and relational contracts with faculty are more likely to expect those relationships to continue in the future, in contrast to those with either transactional or transitional arrangements (Hypothesis 2). We also expect psychological contracts to differ regarding the degree to which expectations are met, because clarity of expectations is
expected to be greater in those contract forms characterized by greater specificity. Thus, we predict that transactional and balanced contracts will have higher levels of met expectations as reported by students than would relational or transitional contracts (Hypothesis 3).

Collaborations can also vary considerably due to demographic factors, including partner similarity (McAllister, 1995). We predict that greater demographic similarity (e.g., in age or gender) between faculty and student, leads to greater quality of the relationship as indicated by perceived favorability, beliefs regarding the collaboration's future, and met expectations (Hypothesis 4).

How a relationship is conducted can also affect its quality (Goodyear, Crego & Johnson, 1992; Fine & Kurdek, 1993). More frequent interactions between faculty member and student will likely lead to a more personal relationship. Communication, a central aspect of managing psychological contracts cannot take place unless the parties involved have opportunities to interact. Kramer and Martin (1995) describe what they term the "black hole," where students and faculty go for long periods without communication. (They note that the black hole is often characterized by over-interpretation on the part of students of minor exchanges with faculty).

We expect that the frequency of meetings differs across contract types. Specifically, we expect psychological contracts with higher relational components to be associated with more frequent meetings. Thus, we expect that balanced and relational contracts will have greater meeting frequency than transactional or transitional contracts (Hypothesis 5). We also expect that a greater frequency of meetings in the collaboration will give rise to a greater level of met expectations (Hypothesis 6).

The sciences and their pedagogy. Graduate education is the subject of a good deal of recent debate. Observers note that doctoral education has changed considerably over the past three decades (Bowen & Rudenstine, 1992) and that the nature of the education process varies
across disciplines and research paradigms (Lodhal & Gordon, 1972). In comparing university curricula over a 25-year span, Bowen and Rudenstine note that the number of subfields and interdisciplinary options has increased markedly, formally stated expectations concerning time to earn one's degree have slipped, and the overall structure of doctoral education has become more loosely defined. By implication, changes in the structure of graduate education can alter the nature of faculty relationships with students and introduce greater uncertainty regarding appropriate or normative models for those relationships. In an era of transition, it becomes increasingly important to understand the links between the nature of faculty relationships with students and the roles played by disciplinary paradigms and research methodologies in shaping the faculty-student collaborations.

Research has found that paradigmatic differences create different styles of doctoral education, including research methods (e.g., laboratory, field) and discipline structure (i.e., scholarly consensus). Higher rejection rates for academic journals across disciplines have been linked to variations in scholarly consensus (Hargens, 1988) with higher rejection rates and greater variation in reviewer agreement in sociology or organizational behavior than in engineering, physics, or chemistry. Level of paradigm development has been inferred to indicate the predictability of the technology employed in different scientific disciplines (Lohdal & Gordon, 1980), where paradigm development is defined as the amount of agreement over theory and methodology. This degree of agreement can have an impact even on the structure of the academic department: Pfeffer and Moore (1980) report that disciplinary consensus enhances administrative stability for academic department heads while lack of consensus is associated with higher turnover.

In this study, we investigate whether the degree of consensus or paradigm development impacts the nature of the student-faculty relationship. Because virtually no research exists on the
quality of faculty-student relations across disciplines, we frame no specific hypotheses. Rather we pose the following research questions:

(1) Are high- and low-paradigm fields characterized by different psychological contracts between students and faculty?

(2) Are high- and low-paradigm fields characterized by different levels of student ratings of the quality of their relationship with faculty?

(3) Do the types of research methodologies involved affect the relationship's quality?

Methods

One hundred seventy doctoral students at a major research university participated in this research. The following departments were included: chemistry, physics and astronomy, mechanical engineering, sociology, organizational behavior, marketing, political science, economics, and accounting. In return for their participation in the study, students were entered in a lottery with four drawings for $200, $100, $50, or $25. The overall student response rate was 37%.

In a second assessment, 46 faculty members in the same nine departments completed a nearly identical survey (which substituted "student" for "faculty" collaborator where appropriate). Faculty who returned the surveys were entered in a lottery for $200. The response rate was 25%. Because the low number of respondents reduces the power of faculty data for hypothesis testing, this research uses faculty data descriptively to compare with student response patterns.

Participants were told that all survey responses would be kept anonymous and confidential. Students were asked to think of a research collaboration they had with a faculty member (or a student in the case of faculty participants) in their department, and to base their answers on this collaboration. The questions assessed the following aspects of the collaboration:
the type of psychological contract, the interaction processes, the quality of the relationship, and
the participants' demographics and values.

Type of psychological contract

Participants were given four descriptions (without the labels indicated below) characterizing the four types of contracts. They were asked to choose the one that most closely fit their collaborative research relationship. This approach to obtain student assessments of their collaboration's psychological contract is similar to that recommended by Shortell and Zajac (1990) in obtaining nominal data.

Relational--"This collaboration involved a mentoring relationship. The time frame for the duration of the relationship was left open-ended. The performance standards required of me were implicit."

Transactional--"This collaboration involved a structured project with a specified time frame. Performance terms were clear and explicit."

Balanced--"This collaboration involved both a mentoring relationship and at least one structured project. The time frame for the duration of the relationship was understood to be long-term. Performance terms were well-specified."

Transitional/Unstable--"This collaboration had no specified time frame or performance requirements."

Quality of the Relationship

There were three measures of the perceived quality of the research collaboration: "Favorability," "Future," and "Met Expectations." Developed for this study, the measures were derived by a maximum likelihood factor analysis with a varimax rotation, based upon all questionnaire items addressing relational quality. A 5-point scale (1 = strongly disagree, 5 = strongly agree) was used. Three factors emerged forming the measures described below. Items
were chosen when loadings were greater than .4 and the criteria for simple structure were met.

**Perceived favorability of relationship** -- "I learned a good deal about the subject of our collaboration," "My career was enhanced by this collaboration," and "I am better able to get a job in my chosen field as a result of this collaboration," (student alpha= .83/faculty=.76). **Beliefs regarding the future of the relationship** -- "I would not collaborate with this person again," "My relationship with this faculty member improved as a result of our collaboration," "My relationship with this faculty member deteriorated as a result of our collaboration," "We have made plans to work together in the future," "I would be willing to work with this person again if the opportunity arose," and "I would not be willing to work with this person again, even if the opportunity arose," (student alpha =.84/faculty =.83, negative items were reversed). Note that even a successful relationship might come to the end of its lifespan. Thus, discontinuing a collaborative relationship does not necessarily indicate that the relationship was unsuccessful. However, we argue that continuity is a dimension of success, because a relationship is more likely to continue if past experiences were positive than if they were negative.

**Met expectations**: "This collaboration was successful in all important respects," "This collaboration exceeded my expectations," "My expectations were met in this collaboration," "My partner's expectations were met in this collaboration," and "This collaboration was a mutually satisfying experience," (student alpha=.91/faculty=.93).

**Publications**

Since the above three measures of the collaboration's quality are subjective, we also employ a more objective outcome measure to assess the validity of the subjective indicators. Respondents were asked to indicate whether the collaboration produced publications ("Publication," a yes/no measure) and if yes, how many ("Pubno"). Results indicated that publication correlated with favorability and met expectations for the student data (Table 1) and
with all three measures of relationship quality for the faculty data (Table 2).

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Insert Table 1 and 2 about here

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**Meeting Frequency**

Participants were asked how often they met with the faculty member regarding the collaboration. They were instructed to choose one of the following: (1) weekly, (2) several times a month, (3) once a month, or (4) less than once a month. This measure was reverse coded for clarity.

**Similarity in demographics and values**

Participants were asked to indicate their own gender, the gender of the faculty member, their own age when the collaboration began, and the faculty member's age when the collaboration began (they were asked to approximate if they did not know for certain). Two demographic similarity measures were created, "Diffage" (the difference between faculty age and student age) and "Coed" (coded as 1 if faculty and student differed in gender and 0 if their genders were the same). Similarity in values was assessed to investigate how demographics might affect the nature of the collaboration. Participants were asked to indicate on a 5-point scale the extent to which they agreed with each of the following statements (1 = strongly disagree, 5 = strongly agree): "We had similar values," "We had similar research philosophies," "We agreed on what problems were important to study," "We agreed on what methods were valid," and "We developed a friendship as a product of our collaboration," (student alpha=.83/faculty=.70).

**Paradigm**

Paradigm development refers to the degree to which a particular discipline has an established consensus regarding its theory and methodology. The departments included in the
study were categorized into those characterized by low and high paradigm development. Using the criteria outlined by Pfeffer and Moore (1980), the low paradigm group included organization behavior, marketing, sociology, and political science, while the high paradigm group contained economics, accounting, engineering, chemistry, and physics and astronomy.

Type of Research

Participants were asked to indicate the primary research activity involved in the collaboration. They were instructed to choose one of the following four options: laboratory research, computer simulation, field research, or theory/concept development (non-empirical).

Results

Balanced and relational psychological contracts characterized over 75% of the collaborations described by both doctoral students and faculty. Doctoral student ratings regarding the quality of their collaboration with faculty differed significantly across contract types, based on one-way analyses of variance (ANOVA, Table 3). Favorability ratings were highest among balanced contracts, followed by relational, transitional, and transactional supporting hypothesis 1. Similarly, the likelihood that the collaboration would continue in the future differed significantly across contract forms and in the same pattern as for favorability. Consistent with hypothesis 2, students with balanced and relational contracts with faculty were more likely to expect those relationships to continue, in contrast to those with either transactional or transitional arrangements. Met expectations also differed significantly across the psychological contract types with balanced having the highest ratings and transitional the lowest. We anticipated clarity of expectations in contracts characterized by specific in performance terms, thus hypothesis 3 predicted that transactional and balanced contracts would have the highest levels of met expectations as reported by students. However, balanced and relational were rated the highest on met expectations, thus providing only partial support for the hypothesis. One explanation for this
result is that doctoral students in general may expect to have more personal relationships with faculty members, as opposed to the task-focused arrangements characteristic of transactional contracts. Personal relationships are more characteristic of balanced and relational contracts. Nonetheless, transactional contracts were rated higher on met expectations than on the other two attitude measures. This suggests that while students may find this psychological contract form less desirable, the structured nature of transactional arrangements does facilitate to a degree the meeting of expectations.

Note that our measures of relationship quality are subjective, whereas objective measures might be preferred. Results indicated that the publication variable correlated with favorability (r=.22, p<.01) and met expectations (r=.17, p<.05) for the student data and was significantly related to all three measures of relationship quality for faculty: favorability (r=.34, p<.05), future (r=.50, p<.01), and met expectations (r=.64, p<.001). Note that the number of publications followed a somewhat similar pattern, though with typically lower correlations (see Table 1). It is interesting that publications seem to be a more important indicator of relationship success for faculty than for students. Although norms for publication during graduate study vary across disciplines, we would expect both students and faculty to view successful publication as a positive result of collaboration.

Hypothesis 4 predicted that the quality of relationships would be positively related to demographic similarity. Surprisingly, no significant correlations were found between the various demographic and quality measures, with one exception: Diffage, that is, the difference in age between faculty and student collaborators, correlated significantly and negatively with future (r=-
This finding suggests that collaborations between faculty and students who are closer in age are more likely to continue. Although faculty who are older (and therefore closer to retirement) may be less likely to continue relationships into the future, our findings do not appear to be a function of that fact. Rather, the effect appears to be linked to similarity in values associated with people close in age: When we control for value differences, the effect of age difference disappears. Note that difference in age is the only demographic factor that significantly correlates with value similarity.

While demographic similarity appears to contribute little to the prediction of relationship quality as perceived by students, value similarity was positively, significantly correlated with all three measures of success (favorability: r=.42, p<.001; future: r=.68, p<.001; met expectations: r=.68, p<.001). Reinforcing these statistical patterns, students often gave a comparable response to the open-ended question regarding what advice they would give to other graduate students. In essence they indicated, "Make sure you think similarly to the faculty member."

Supporting hypothesis 5, meeting frequency varied significantly across contract types (F=4.72, p<.01; Table 1) with balanced contracts (mean=3.60) having the greatest frequency followed by relational (mean=3.42), while transactional (mean=3.36) and transitional (mean=2.9) ones had the least. (By contrast, although meeting frequency was significantly different across contract types for faculty, they reported the highest frequency of meetings in transactional collaborations, although the N is not large.) Meeting frequency was significantly correlated with met expectations for students (r =.20, p < .05) supporting hypothesis 6. Responses from the participants to the question of what advice to give other graduate students based on their own experience also reinforced the importance of meetings and communication: "Try to contact each other as frequently as possible," "Initiate a lot of communication. Advisors assume everything is O.K. if you don't tell them otherwise," and "Communicate regularly."
Research questions regarding type of science. The impact of research paradigms on the nature of the student-faculty relationship was also investigated. No significant relationship was found between paradigm and psychological contract (Chi-squared=6.00, n.s.). However, paradigms do appear to affect relationship quality. The future rating is significantly higher among doctoral students in the low-paradigm fields than in the high-paradigm ones (3.80 versus 3.46, F=6.10, p<.05), as is the met expectations rating (4.01 versus 3.53, F=11.57, p<.001). No significant differences were observed for favorability (4.11 versus 3.98, F=.77, n.s.). These differences might exist because research in low-paradigm fields can involve more interaction and extensive discussions regarding competing theories and ambiguities, creating a significantly greater bonding between faculty and student. Mentoring might also be more critical to career development in low-paradigm fields, given the wider range of career paths and the need to build credibility for one's theories. In high-paradigm fields, characterized by research labs and well-defined programs, a more formalized relationship (hierarchical interactions, delegated tasks) resembling an apprenticeship may be more typical.

Interestingly, the type of research activity faculty and students engaged in is significantly related to psychological contract type (Chi-squared= 19.17, p <.05; Table 4), with relational arrangements characterized by computer simulations and theory development. Predominance of this collaborative form suggests that the exploratory or developmental nature of the tasks involved may make a high degree of structure difficult. Balanced and relational contracts were both characteristic of laboratory research. The majority of transitional arrangements involved laboratory research and theory development. ANOVA of relationship quality measures by research type yielded significant effects for both favorability and future measures, with laboratory and theory work receiving the highest scores for both (Table 5). No differences in met expectations across research type were observed.
Discussion

These results suggest that insights into the faculty-doctoral student relationships can be gained through use of the psychological contracts framework. Results somewhat contradict the view that the doctoral student relationship with faculty is a mentoring process in the context of an academic hierarchy (Kramer & Martin, 1995). From the student's viewpoint, the more successful collaborations are characteristic of what we call a balanced contract, involving both the open-ended support found in relationships and specific tasks that have clear time frames and responsibilities characteristic of a more transaction-like arrangement. Mentoring arrangements, traditionally conceptualized in terms coinciding with the relational contracts studied here (e.g., Kram, 1985), involve lower rates of met expectations than reported for the balanced contract. Faculty may find it particularly difficult to meet students expectations in collaborations focused upon mentoring because performance terms of both parties are often ill-defined. Structure and clear task demands may be critical to successful student-faculty collaborations. Greater attention to the tasks associated with research collaboration, including regular meetings for problem-solving and feedback, may be particularly beneficial in building quality relationships between faculty and doctoral students. Indeed, as Bauer and Green (1994) point out, it may be necessary for doctoral students to be exposed to a broad array of tasks and activities, as well as an array of faculty, in the early phases of their training for successful student socialization to occur. Our findings also suggest that one particularly important feature of the socialization process, in addition to the nature of the tasks involved in the collaboration, is the frequency of meetings. Frequent meetings appear to promote greater met expectations and are likely to reduce conflict.
In summary, the most effective way to mentor doctoral students may involve going beyond a relational focus to collaborations that take a balanced contract form.

Changes in academia, particularly the increasing degree of specialization in fields (Bowen & Rudenstine, 1992), coupled with scarce resources for doctoral and research support, can make effective development of faculty-student collaborations difficult. The present study suggests that conceptualizing this collaboration in terms of a psychological contract can help develop appropriate student-faculty relations. In recruiting, developing, and evaluating doctoral students, it is particularly important to recognize that the information exchanged among students, faculty, and program administrators is often incomplete, with people filling in the blanks along the way--often creating idiosyncratic, subjective interpretations of program or faculty intent, commitments, and performance standards (Rousseau, 1995). Our findings suggest that specific performance requirements coupled with relational support, characteristic of balanced contracts, result in the highest student ratings of relationship quality. Indeed, such arrangements may make it easier for faculty and students to make commitments that they are able to keep.

Limitations of this study

The present study does have several limitations. A major concern is the unresolved directionality of cause and effect. Although it is likely that paradigm and research content exist before students develop their attitudes about a relationship, the frequency of meetings could cause as well as result from the nature of the psychological contract students perceive. Moreover, one might expect students who are dissatisfied with faculty relationships to be disinclined toward characterizing their interactions as mentoring or balanced if doing so might implicate the student in the collaboration's failure. We note that students report instances of conflict in many instances where frequent meetings and balanced contracts are indicated. However, in these cases, students also tend to report successful conflict resolution. Thus, we believe that student attitudes toward
the relationship do not directly influence their descriptions of either meeting frequency or contract type.

The present study is also somewhat limited in its sample, which is drawn from one university and primarily from the student perspective, and in its use of self-report measures. Future research might benefit from matching student and faculty assessments of particular collaborations. However, pilot interviews with doctoral students and faculty indicated that the non-anonymity necessary for collection of matched student-faculty pair data likely would result in lower response rates and little variation in the data (only those who had successful collaborations might be willing to respond). Due to the sensitive nature of the questions asked, potential participants suggested that it would be too risky for them to respond candidly if their anonymity were not preserved. This study allowed participants to return surveys without revealing their identities. (They returned their questionnaires and lottery entry forms separately.) This anonymous format enabled us to obtain the number of candid responses needed for meaningful data analysis. The other limitation of the study is the low sample size for faculty respondents. Expanding the sample size by including more departments is a possibility, but in the present study we sought faculty from the same departments as our student sample. This limitation could be overcome by broader sampling of departments to generate a larger sample size, particularly for faculty, in future research.

Conclusion

Results suggest the psychological contract framework yields findings in an academic population generally consistent with previous industry-based research. It also suggests that greater awareness of the contract-making mechanisms that operate in graduate education can help improve the quality of student experiences and the research collaborations between faculty and doctoral students. Kramer and Martin (1995) point out that participants can feel uncomfortable
basing a faculty-student collaboration on explicitly contractual terms because this might highlight the inequalities inherent in the relationship. However, the tendency of students and faculty to make relational assumptions--each believing that they see the situation as the other does--supports the need to treat the faculty-research collaboration as a contracting process. The key components of an effective psychological contract in doctoral student socialization include clearly stipulated expectations, a focus on research collaborations as opportunities for interaction, and the structuring of tasks to provide the student with clear goals and performance feedback. The creation of effective faculty-doctoral student relationships matters not only because of the quality of each collaboration itself, but also because of the long-term, inter-generational implications (Wade-Benzoni, 1996). A student's advisor is often also his or her role model of what constitutes appropriate student-advisor behavior. Poor management of collaborative relationships between faculty and students can have consequences beyond the relationship at hand--its effects extending into future generations of academic collaborations.
References


Lawler, E. E. ( ).

Lodhal, J. B. & Gordon, G. (1972). The structure of scientific fields and the functioning


