THE FIRST TERM: COMMUNICATION AND SATISFACTION IN COLLEGE STUDENT ROOMMATE RELATIONSHIPS OVER TEN WEEKS

By

Lynn Elizabeth Fraedrich Aho

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Communication

1985

Accepted by the faculty of the Department of Communication, College of Communication Arts and Sciences, Michigan State University, in partial fulfillment of the requirements for the Doctor of Philosophy degree.

Guidance Committee:

Director of Thesis

Chairman

ABSTRACT

THE FIRST TERM:
COMMUNICATION AND SATISFACTION IN COLLEGE STUDENT
ROOMMATE RELATIONSHIPS OVER TEN WEEKS

By

Lynn Elizabeth Fraedrich Aho

This study had two goals, to field test a participant observer method of collecting data on communication in relationships and to explore patterns of communication and satisfaction in college student roommate relationships over 10 weeks, identifying those worth further investigation.

Fifteen students, 12 women and 3 men, enrolled in a special topics class on interpersonal communication kept daily logs of their communication with their roommates. The students were trained as participant observers in the class. Their daily logs included estimates of time together and spent in casual conversation, serious discussion and relational discussions, topics of serious and relational discussions, descriptions of relational discussion, and ratings of their satisfaction with their total relationship and each of the three kinds of interaction.

Overall, the roommate dyads studied talked to each other for an average of 1.91 hours per day, spending an average of 68% of that time in casual conversation, 18% in serious discussion and 12% in relational discussion. Academics, the opposite sex, and room management concerns were the most frequent topics of conversation, careers, drugs,

and people in general the least frequent. Individual personal concerns were discussed far more frequently than external topics such as news or politics or shared or relational concerns. Communication and satisfaction generally decreased for the first 9 weeks of the quarter prior to Thanksgiving vacation and rose in the final week of the quarter after vacation. Previously acquainted dyads spent a larger proportion of time in serious discussions and a smaller proportion of time in casual conversations than did previously unacquainted dyads, but had no significant differences on any other variables. High-involvement dyads spent more time each day talking to each other, discussed more topics, and spent a smaller proportion of their time in relational interaction than did low-involvement roommates. Medium-satisfaction dyads spent the most time together; low-satisfaction dyads spent the least. Low satisfaction dyads had the highest proportion of relational discussions, the middle proportion of serious discussions, and a moderate proportion of casual conversations. Medium-satisfaction dyads had the lowest proportion of relational discussions, the lowest proportion of serious discussions and the highest proportion of casual conversations. High-satisfaction dyads had the middle proportion of relational discussion, the highest proportion of serious discussion and a moderate proportion of casual conversation. The communication patterns characteristic of the four observed types of relationships, high involvement-high satisfaction, low involvement-high satisfaction, high involvement-medium satisfaction, and low involvement-low satisfaction, were described.

A critique of the method listed specific improvements to be made including redesign of the log sheet, direct measurement of shared

activity and frequent collection of logs. Future research directions are discussed as well as possible causes for and implications of the findings.

Soli Deo Gloria

ACKNOWLEDGMENTS

My sincere thanks are offered to the members of my guidance committee, Drs. Gerald R. Miller, Judee K. Burgoon, Michael Burgoon, and William Crano, also Drs. Norman Fontes and Donald G. Ellis, who left Michigan State University before this study was completed but were very helpful to me in its early phases. Dr. Miller has been a gem of an adviser and has my deepest appreciation. I regard the day he agreed to take on a trembling rookie barely out of her teens as one of my most fortunate. Special thanks also to Dr. Judee Burgoon for her friendly concern and shining, inspirational example.

The students who volunteered to participate in this study deserve many thanks. This was not the easiest way to earn three credits, yet they consistently gave beyond the requirements, and they trusted me with some very personal information. I thank them and hope that their benefits from the class were consistent with the quality of their participation.

Thanks are due as well to colleagues Jim Dillard and Scott Garrison for their friendship and support in the planning and data collection stages of this research.

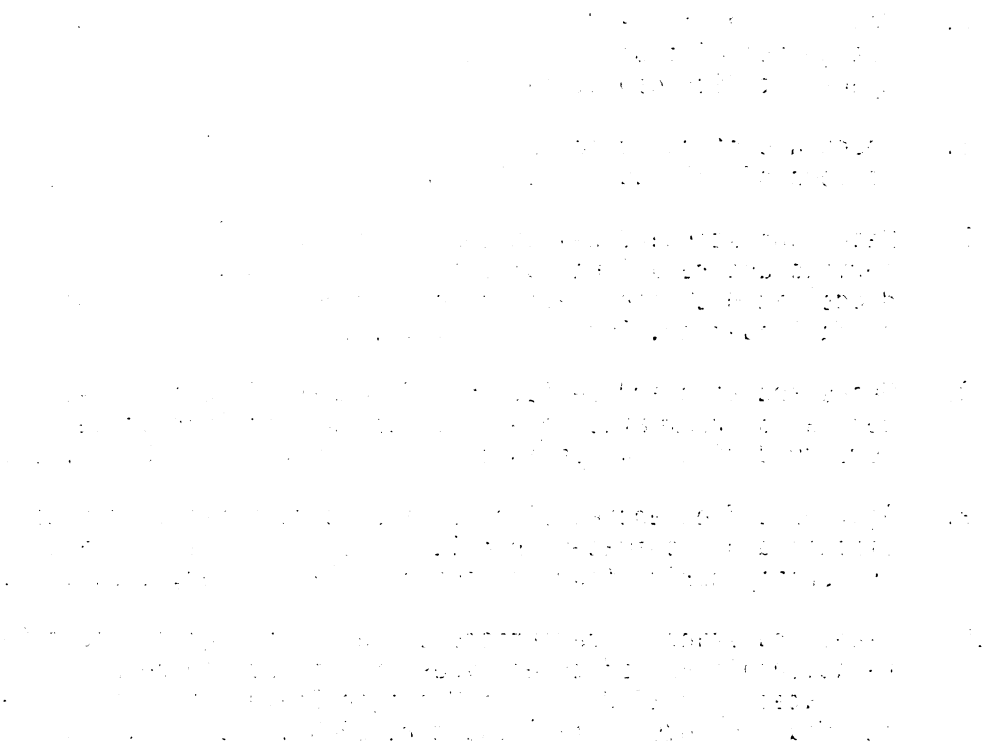
Thank you, Betty Uphaus, for your patience and skill in helping me prepare this manuscript.

Teachers Aaron Vallesky and Sue Wienhorst inspired me to think deeply and aspire to the heights, and I remember them with gratitude at this significant milestone in my career.

Dear and loving members of my family have helped me in ways too numerous to recount. They had confidence in me when I had none and pushed me onward when I was ready to give up. My thanks are given to all of them, particularly Phyllis, Royal, Craig, Ann, Sarah, Paul, and Libbie Fraedrich, Irene Bohren, Audrey and Richard Granum, Miriam and Paul Aho, and Irene Beattie. My mom's and dad's part in this degree began when they read stories to their little daughter and showed her the wonders of creation. It continued as they made their children's education a higher priority than their own comforts or recreation, as well as when they encouraged me in this project. They made it possible in a very concrete sense and have every right to take pride in its completion.

Just as I know I never would have attempted this project without my parent's support, so I would never have finished it without my husband's support and aid in many ways both large and small. A helpful and supportive husband is rarer than perfect diamonds, and surely Robert is the finest of them all. My thanks are his as my love has been and will be, now and ever.

TABLE OF CONTENTS



LIST OF TABLES

Table | Page

LIST OF FIGURES

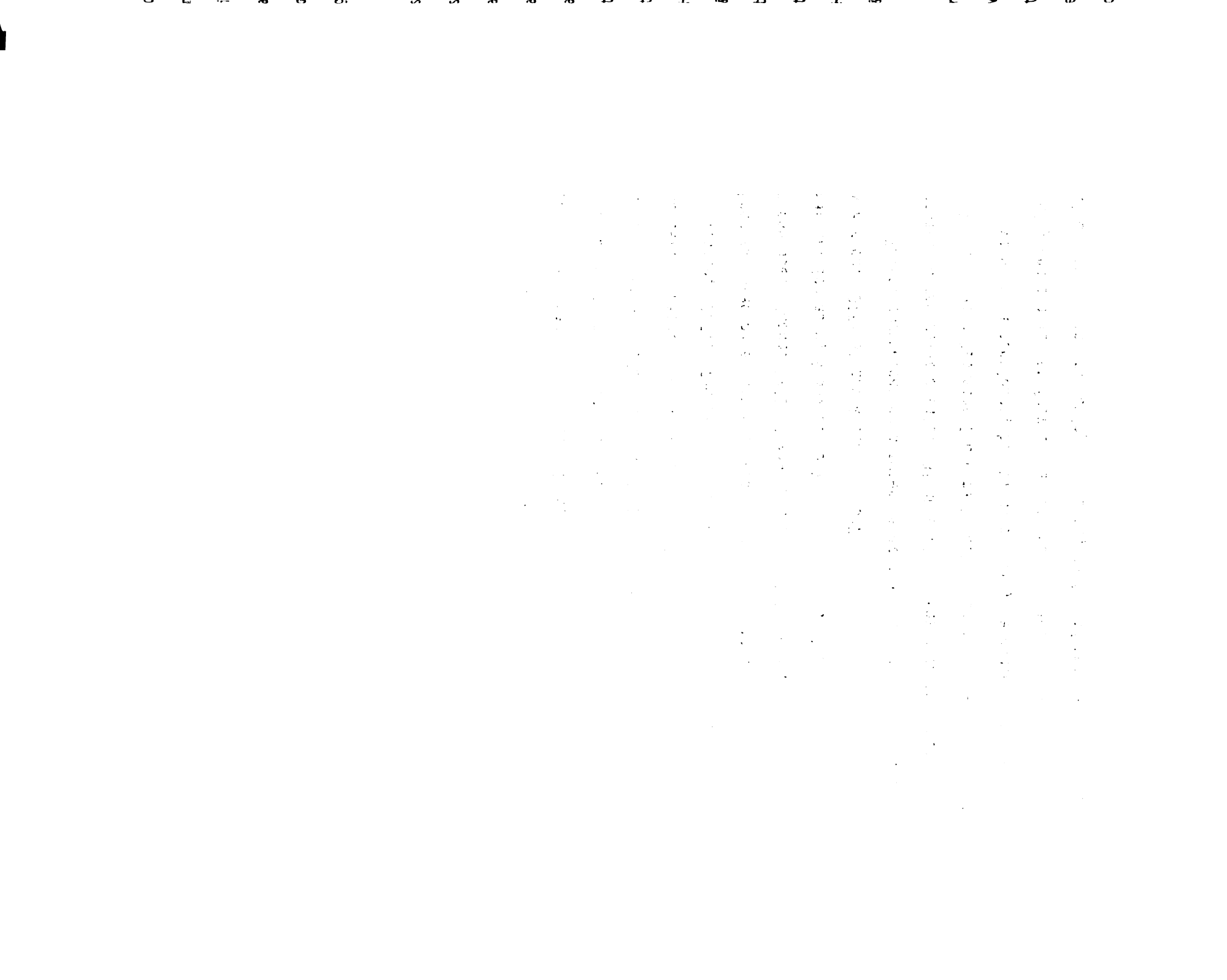
CHAPTER 1

INTRODUCTION

Both scholarly and lay understandings of relationship formation emphasize the importance of communication in forming and maintaining relationships. Scholars define relationships as patterns of interaction (Homans, 1979). Several recent treatments of interpersonal communication (Berger & Calabrese, 1975; Duck, 1973; Knapp, 1978; Miller & Steinberg, 1975; Phillips & Metzger, 1976) emphasize the importance of communication in relationships. Popular understanding of forming a friendship or other relationship is that it is a process of getting to know one's relational partner by talking and doing things together. Block's (1980) survey on friendship shows that people frequently characterize their relationships primarily in terms of communication. Survey responses also show that people feel a need for increased communication when the circumstances of a relationship change.

Communication is the means of forming relationships. Although variables such as attitude similarity, need complementarity, demographic similarity, etc. may influence relationship formation, without communication forming a relationship is impossible. Communication has at least three major functions in the relationship formation process.

First, communication is a means of exchanging information, both in the content of communication and by providing an opportunity to observe a potential relational partner's behavior (Knapp, 1978; Miller & Steinberg, 1975). Altman and Taylor (1973) focused on this aspect of



communication in relationship formation in their social penetration model. Berger and Calabrese (1975) specified that information exchange is important because it reduces uncertainty in relationships. Miller and Steinberg (1975) viewed the type of information used to make predictions about a relational partner's behavior as a criterion distinguishing interpersonal from noninterpersonal relationships.

Second, communication is important in the formation of a relationship because relational partners negotiate the terms of their relationships through communication. Negotiation may be explicit or it may be an implicit part of the dialog between relational partners. Scanzoni and Szinovacz (1980) provide examples of explicit negotiation. Marital and family therapists frequently use explicit negotiation techniques in therapy sessions and try to teach families more effective modes of negotiation (Haley, 1963; Jackson, 1965; Likorish, 1975; Rausch, Barry, Hertel, & Swain, 1974; Rice, 1979; Steinmetz, 1977; Tittler, Freedman, & Klopper, 1977). The area of implicit control in relationships has been explored by a number of researchers using interaction analysis techniques (Doane, 1978; Fisher & Beach, 1979; Folger & Sillers, 1977; Harper, Scoresby, & Boyce, 1977; Jacob & Davis, 1973; Mark, 1971; Rogers & Farace, 1975; Sluzki & Beavin, 1977).

Third, communication between relational partners is a source of reward in the relationship. Block's (1980) respondents stressed the value of having "someone I can talk to." Jourard (1964), too, stressed the value of a confidant, but Block's survey responses also reveal the enjoyment people get from conversations that are not particularly self-disclosing. They may enjoy discussing topics of interest, such as

favorite activities, politics, or current events, or they may enjoy conversation as a social activity that is one of the benefits of an ongoing relationship. Story-telling and joke-telling are salient examples of conversation as an entertaining activity. Conversation with relational partners may also provide useful information and a sense of belonging to a group or social network. Gossip is entertaining, but also fosters identification with a social group. Particularly in a college setting, conversation can provide opportunities for social comparison of attitudes and values. Heath's (1968) study of college students indicates that discussions with peers who have different ideas and perspectives are an important part of students' intellectual maturation.

Many theoretical treatments of relationship formation have specified changes in communication as relationships are formed, a process frequently characterized as movement toward greater intimacy. Knapp (1978) summarized several theorists' statements on the changes in communication as relationships move toward greater intimacy. He states that as relationships move toward greater intimacy, communication between relational partners is characterized by:

1. more messages manifesting greater depths of self-disclosure.

2. more message strategies associated with constructive (rather than destructive) conflict.

3. a higher frequency of absolute and superlative phrases describing the relationship ("You're the best and I'll be yours forever"). These statements abound in the early growth stages but would later become less frequent and become less certain. (Note: This behavior signifies a different way of expressing feelings at a different time in the relationship, not a decrease in affection).

4. a higher number of commitment messages repeated in essentially the same form in the early growth stages. These messages acquire alternative forms as intimacy progresses.

5. more frequent use of the future tense during the early stages of intimacy, followed by an increasing use of the present and, eventually, the past tense as the history of the relationship grows and the participants age.

6. a greater frequency of intimate-affectionate forms of address (rather than more formal forms).

7. a higher frequency of nonverbal messages associated with affection, liking, and warmth (more touching, longer touching, touching in more intimate places, more mutual eye contact, longer eye gazes, more pupil dilation, more symmetry of dress, more comfortable silences, more immediacy behaviors, and more positive facial and vocal behaviors).

8. a greater amount of private jargon and private meanings unique to the intimate pair.

9. a more frequent use of verbal shortcuts that reflect the pair's local cultural identity. This identity is based on shared expectations, experiences, and assumptions.

(Knapp, 1978, pp. 174-175)

The strong theoretical interest in changes in communication during relationship formation is relatively recent, so it is not surprising that relatively little empirical information on this topic is as yet available. A number of studies support the hypothesis that there is generally more self-disclosure in established relationships such as friendships and marriages than there is in initially interacting dyads (Archer, 1979). Laboratory observations reveal that the pattern of self-disclosure in established close relationships may differ from that found in initially interacting dyads (Archer, 1979; Ayres, 1979). Taylor (1968) found self-disclosure between pairs of initially unacquainted roommates to increase over time for 13 weeks. Other aspects of interaction between relational partners and previously unacquainted

dyads have also been compared. Winter, Ferreira, and Bowers (1973) found that in a laboratory decision-making task spouses showed more frequent spontaneous agreement, less politeness, more interruptions, and less frequent exchange of explicit information about their own choices than did strangers. Birchler, Weiss, and Vincent (1975) found that the interaction of spouses was more negative than that of stranger dyads. Thus, it seems that additional descriptive data about communication in relationships would be a valuable contribution to the literature on relational communication and relationship formation.

First, and most importantly, such descriptive knowledge would be of scientific interest in its own right, as part of a natural history of relationships. At a very elementary level, a typology or classification system is recognized as a worthwhile form of scientific knowledge (Babbie, 1975; Blalock, 1969; Reynolds, 1971). Existing typologies or classifications of relationships (Marwell & Hage, 1970; Triandis, Vassilou, & Nassikou, 1968; Wish, Deutsch, & Kaplan, 1976) frequently focus on respondents' norms for the relationships named rather than their behavior in various types of relationships. While this study is not aimed at constructing a typology, since only one kind of relationship will be studied, the information provided would be useful in that endeavor.

Beyond classification, a natural history of relationships would provide a more comprehensive understanding of actual active relationships and the roles they play in the lives of individuals and in forming social units. Leopold (1966) eloquently expressed the need for natural history in his own field of biology, deploring that "the living

animal is virtually omitted from the present system of zoological education (p. 206). Instead, as he describes, students spend many hours memorizing the names of bumps on bones of different animals, an exercise defended on the basis of its usefulness in teaching evolutionary theory. Leopold grants this but urges the need for an understanding of animals, plants, and their environments which can only be gained through natural historical study. In an analogous fashion, a social science which focuses narrowly on specific variables may lose sight of living relationships in their environments.

Second, as Reynolds (1971) noted, the individuals who invent the best new theories are very familiar with their phenomena. A body of descriptive literature on relationships would aid scholars in becoming more broadly familiar with a range of relational phenomena faster than if they needed to gain all of their knowledge through personal observation. Unlike those who study more exotic phenomena, social scientists can be easily lured into thinking that their own personal experiences in relationships are an adequate basis for theorizing. The pitfall in this thinking becomes obvious when one considers the generalizability of theories based entirely on the experiences of a group so atypically educated, verbal, and aware of social phenomena as social scientists. Using such a group as a sample for a study would be unthinkable. Although there is no formal calculus for translating descriptive findings into theories, it is also true that theorizing without extensive knowledge of the phenomenon is nonsensical.

Third, descriptive information would be useful in planning experiments and in interpreting and applying experimental findings. Knowledge of natural conditions would aid experimenters in planning

naturalistic research conditions and manipulations. Advance information about the ranges and variabilities of key variables would be very valuable in computing power estimates and specifying statistical tests. Researchers would be much better equipped to discuss the generalizability of their findings if they had more information about the similarities and differences of different kinds of relationships and social contexts. Descriptive information could make it easier to resolve apparently conflicting sets of results by evaluating the range of the relevant variables included in each study relative to their normal range and distribution, and by evaluating the representativeness of samples.

Descriptive information would make translating the rather abstract terms of theory into terms which can be readily understood and used by laypeople. Science is properly concerned with control as well as explanation and prediction. In the context of interpersonal relationships control must, in most respects, be exercised by changing the behavior of the relational partners, which in turn cannot be accomplished unless they understand the changes to be made. Philosophically, it also seems that the most appropriate exercise of control over interpersonal relationships is by the relational partners themselves, which requires explanation of social-scientific theories and findings in a readily grasped and used manner. Because descriptive information would aid in constructing these explanations, it would be useful in applying social-scientific theory and findings as well as in planning experiments and interpreting research findings.

Thus it seems that observing communication while relationships are being formed would be useful both for gaining greater understanding

of the relationship formation process and for moving toward a systematic, empirical basis for prescribing behaviors that will lead to the formation of satisfactory relationships. The primary goal of this study was to begin making such observations.

However, good methods for collecting descriptive observations of relationships are not readily available. Conventional, observer-oriented methods are not suitable for the relational setting because the presence of an external observer alters the situation considerably and the meaning of behavior in relationships may rely heavily on relational history and idiom. Unobtrusive recording raises serious ethical questions as well as being expensive and severely limiting the pool of individuals who might be willing to participate in the study. A participant observer method seems to offer the best opportunity for collecting rich descriptive data. Although participant observations have been criticized in the past, this criticism lacks a firm empirical foundation. The majority of the studies commonly cited as evidence that participants are very poor observers (Hill, 1965; Kenkel, 1963; Levinger, 1963; McCord & McCord, 1961; Olson, 1969; Olson & Rakunsky, 1972; Turk & Bell, 1972; Weller & Luchterhand, 1969) either make inappropriate comparisons or rest on the assumption that an outsider's view of what is going on in a relationship is necessarily correct, and if the participants' views differ the participants are wrong. It seems much more rational to take the view, as have Olson (1977) and Kelley (1977), that insiders' and outsiders' perspectives on relationships differ, but this does not mean that either is in error. Viewed closely, it would seem that although relational participants would have a greater tendency

toward bias because of their personal involvement in the relationships, their chances of out-and-out error in interpreting relational communication would be less due to their greater knowledge of the relationships.

When the observational conditions for participant observers are improved to make recording of observations more systematic and immediate, bias may be significantly decreased. Only one such participant-observer study was available at the time this research was planned, and its protocol could not be directly adopted. Wills, Weiss, and Patterson (1974) studied the frequencies of pleasing and displeasing behavior among seven married couples for 2 weeks. Their protocol did not involve the variables of interest in this study, and the data recording procedures were too demanding to be sustained by college students, the proposed participants, for 10 weeks. Therefore, a second goal of this study was to compose, use, and evaluate a participant-observer protocol in dyadic relationships.

A number of considerations played a role in the selection of college roommate relationships to be observed in this study. A basic underlying premise was that forming new relationships is a social skill. Children begin to learn this skill as babies and generally master the basics of it by adolescence, although learning certainly continues into adulthood. While there are expected to be variations in the pattern for different types of relationships and different situations, there should be basic similarities in how relational partners behave in forming various types of relationships. Exactly what differences and similarities there may be cannot be specified until relationship formation has been studied in a variety of different situations and types of

relationships. However, one might expect the formation processes to be most similar for similar kinds of relationships.

Roommate relationships belong to the very broad category of peer relationships which also includes classmate relationships, coworker relationships, most friendships, and many marriages. While all of these would be expected to be somewhat similar in relational development to roommate relationships, the most similar would be classmates, immediate coworkers, and same-sex friendships. Cautious generalization from roommate relationships to these similar types of relationships would be logical. Compared to family relationships and supervisor/supervisee relationships, most peer relationships have received relatively little scientific attention. This, coupled with the importance of peer relationships to the participants, made a type of peer relationship an attractive choice for study.

Roommate relationships were selected from among various types of peer relationships for both pragmatic and more scholarly reasons. One of the more scholarly reasons is that roommates are not so strongly influenced by societal role prescriptions as are partners in other types of relationships. Socially prescribed roles for roommates, if any, are vague and weak compared to those of spouses, for example. Roommates' joint activities are not defined for them as co-workers' joint activities are defined by their work roles. Thus there would seem to be a greater necessity for negotiation of roles through interaction than might be the case in other kinds of relationships. Scanzoni and Szinovacz (1980) described a husband and wife simply arising on the first day of their marriage and going about their culturally prescribed duties, experiencing very little need for talk to decide who

would do what tasks. One can hardly imagine this occurring between roommates. Because somewhat more communication may be necessary in forming a roommate relationship, roommate relationships may be a particularly good place to observe the role communication plays in relationship formation.

A second rather scholarly reason for selecting roommate relationships is that they do not seem to be expected to necessarily be very intimate. Knapp, Ellis, and Williams (1980) found that respondents rated the relational term "roommate" as only slightly above the midpoint in intimacy. "Roommate" ranked thirty-seventh in intimacy ratings of 62 relational terms which ranged from "husband" and "wife" to "acquaintance" and "employer." As noted earlier, a number of authors have dealt with relationship formation as a process of moving toward greater intimacy (Knapp, 1978). Yet, many relationships never become particularly intimate (Miller & Steinberg, 1975). What qualitative or quantitative differences would be seen in the formation of nonintimate relationships compared to intimate ones? Are relationships which are not moving toward greater intimacy stagnating as Knapp (1978) proposed? Can nonintimate relationships be satisfying? It would seem that more light could be shed on these issues by examining relationships which may become intimate, but are not necessarily expected to be either intimate or nonintimate, than by relationships which are usually expected to become intimate but fail, sometimes, to do so, as in the latter the questions of violations of expectations and non-normative behavior may obscure the issues. Roommate relationships may be either fairly intimate or rather distant and uninvolving, apparently without

any violation of social norms. Heath (1968) reported roommate relationships of both kinds. He found that roommate relationships may be a maturing or immaturing influence. Zillman and Stocking (1976) used a manipulation in which the stimulus people portrayed their roommates either as friends or enemies. If both relatively intimate and relatively nonintimate relationships can be found in the sample of roommates, it would be very advantageous, since differences in the intimacy of the relationships would not be confounded with differences in type of relationship as would be the case in comparing (intimate) spouses to (nonintimate) friends or co-workers.

Third, roommates are under relatively strong pressure to relate to each other by virtue of the fact that they must share relatively small living quarters. This is a situation in which attempts to not communicate are likely to be taken as meaningful; in which, for example, "not saying anything" can be quickly translated into "pointedly ignoring." This pressure to relate creates a situation in which a researcher is more likely to find a wide range of different interaction patterns and communicative behaviors than in relationships like friendships. College students, as well as adults in employment or family work settings, usually have to make deliberate efforts to see their friends. When friction occurs that effort may simply not be made, at least for a while. This decreases frequency of interpersonal conflict or problem-solving in friendships, as the need for them is avoided. Studying roommate relationships provides a greater opportunity to observe how relational problems are solved and conflicts resolved.

Finally, like other types of peer relationships, roomate relationships seem to have the potential for significant impact on people's

lives. College roommates are frequently noted as being an important part of the college experience (Heath, 1968; Madison, 1969; Newcomb & Wilson, 1966, Newcomb & Feldman, 1969; Williams & Reilley, 1972). Prospective students are advised that roommates may be important (Barclay, Crano, Thornton, & Werner, 1971), but are not given concrete advice on how to have positive roommate relationships. Roommates are also found in other institutional settings besides college dormitories, and observations of college roommates should apply fairly readily to these other roommate situations. In addition, as housing costs rise relative to income and the number of single childless adults increases, it may become more common for adults who are not initially relatives, close friends, or lovers to share apartments or houses. While adult roommates probably differ from college student roommates in some respects, limiting the applicability of these observations, they can still shed some light on the possible dynamics of adult roommate relationships.

The practical reasons for selecting roommate relationships concern the ease of defining and studying them. Unlike "friend" or "acquaintance" (Block, 1980; Reisman, 1979) there are few ambiguities or shades of meaning in the term "roommate." Because of this, and because the definition uses observable criteria, it is easy to operationalize as well. Also, an investigator can identify roommate relationships at or close to their beginning, while friendships and romantic relationships generally cannot be identified until they have existed for some time. Roommate relationships are common on college campuses. It may be easier to get participants willing to report on roommate relationships than on, for instance, romantic relationships, because the joint activities of first-time college roommates are unlikely to include the

sort of sexual or financial activities that most people consider strictly private. Roommate relationships, while very immediate and involving, do not represent a long-term commitment or self-defining personal choice as do marriages and some friendships and romantic relationships. Changing roommates is usually not strongly stigmatized. Therefore it seems likely that more accurate participant observations would be obtained of roommate relationships because the participant observers would be less strongly motivated to provide a cognitive defense for their decisions, save face, or report behavior consistent with cultural role prescriptions for their relationships.

In summary, roommate relationships were selected from among the various types of peer relationships because they have characteristics which make them easy to study and because their relative lack of strong socially prescribed roles makes them interesting to study. They are not unique in lacking strong social role prescriptions as co-worker relationships also have relatively weak role prescriptions and role prescriptions for friendships are fairly vague and sometimes contradictory (Block, 1980). Thus it is expected that the results of this study could be fairly readily generalized to nonromantic same-sex peer relationships and generalizable with rather more caution to other types of peer relationships. Some components of the relationship formation process observed in roommate relationships will be common to the formation of all relationships, but until the process has been studied in a variety of relationships it will be difficult to say which ones.

Research on roommates has most commonly concerned roommate compatibility (Gehring, 1970; Lozier, 1970; Nudd, 1965; Pace, 1970; Pierce,

1970; Roby, Zelin, & Chechile, 1977; Scheidt & Smith, 1974; Scheidt & Smith, 1976; Schuh & Ondre, 1977). The educational effects of roommates on each other (DeCoster, 1968; Hall & Willerman, 1963) and means of dealing with roommate conflict have also been studied (Miller & Zoradi, 1977; Phelen & Heick, 1977). Williams and Reilly (1972) provide an extensive review of the studies on roommate compatibility and educational effects, reaching these conclusions:

1. Roommates who are also enrolled in the same course will achieve higher grades than roommates who are not so enrolled.

2. Roommates matched on certain apparently significant variables are no more likely to be compatible than roommates assigned at random.

3. Roommates who are very much dissatisfied with one another will experience less academic success than other roommates.

4. Room assignments based on academic classification or major course of study have no influence on grades of students.

5. Room assignments based on academic classification possibly increase scholarly orientation of students but probably do not influence other attitude or personality scores significantly.

(Williams & Reilly, 1972, p. 408)

Several more recent studies have also focused on roommate compatibility. Scheidt and Smith (1974, 1976) found birth order compatibility to be a significant factor in roommate compatibility. This finding was refuted by Schuh and Ondre (1977) who criticized Scheidt and Smith's (1974, 1976) analysis and found no significant difference in compatibility between roommates matched for compatible versus conflicting birth orders. Although not significant, the difference was in the direction of greater compatibility among roommates matched for conflicting birth orders. Roby, Zelin, and Chechile (1977) achieved a

significant level of success in matching roommates based on their own expressed preferences on a number of key issues using a computerized optimization technique. Unfortunately, Roby, Zelin, and Chechile (1977) do not report what key issues were used in eliciting the preference statements. Wetzel, Schwartz, and Vasu (1979) compared the predictive power of three hypotheses about roommate compatibility, the similarity hypothesis, that similar roommates are more mutually attractive, the social desirability hypothesis, that roommates having socially-desirable characteristics are more attractive, and the ideal hypothesis, that roommates who more closely resemble each other's ideal roommate are more mutually attractive. The predictive power of the similarity hypothesis received moderate support, that of the social desirability hypothesis little support, and that of the ideal hypothesis strong support. Wetzel, Schwartz and Vasu (1979) note that their findings may have limited practical application since roommates' self-perceptions frequently were quite different from their roommates' perceptions of them, which would limit effective matching of roommates. The authors did not provide any information about the characteristics of respondents' ideal roommates. Walts (1982) found that roommates who differed in their tendency to be active in the morning rated their relationships more negatively than those similar in morning activeness.

Roommates have been involved in a number of studies of interpersonal conflict. Miller and Zoradi (1977) and Phelen and Heick (1977) described programs used by residence hall staff to help roommates deal constructively with interpersonal conflict. The programs were apparently somewhat successful, but the authors provide no information about the nature or causes of conflict in roommate relationships. Wheaton

(1974) used roommate dyads in his study of principled versus communal conflict. Wheaton defined principled conflict as conflict over principles, basic laws or ethical standards. In principled conflict the partners disagree "in principle," that is, they have different standards. Communal conflict was defined as conflict which assumes adherence to the same basic principles. In communal conflict partners disagree about what action is most consistent with the principle, or best attains its goals. He found that principled conflict did have a destructive effect on cohesiveness while communal conflict had a positive influence. However, Wheaton (1974) did not discuss the issues, causes, or frequency of conflict.

Perception of crowding and problems caused by crowding has also been studied among roommate relationships (Baum, Shapiro, Murray, & Wideman, 1979; Glassman, Burkhart, Grant, & Vallery, 1978; Gormley & Aiello, 1982; Riddy, Baum, Fleming, & Aiello, 1981; Walden, Nelson, & Smith, 1981). These studies compared roommates in overpopulated rooms to those in regular-density rooms, e. g. three roommates in a double room compared to two roommates in a double room. Several factors besides density were found to mediate perception of crowding. More positive relationships among roommates seemed to inhibit perception of crowding (Gormley & Aiello, 1982). Coalition formation between roommates which left a roommate isolate was associated with decreased perceptions of crowding among coalition members and increased perception of crowding among isolates (Baum, Shapiro, Murray, & Wideman, 1979; Riddy, Baum, Fleming, & Aiello, 1981). Violation of students' expectations of density decreased students' satisfaction with their living

arrangements (Glassman, Burkhart, Grant, & Vallery, 1978). Finally, sex differences in perceptions of crowding and reactions to high-density conditions, with men having more negative reactions to high density than women, were found in one study (Walden, Nelson, & Smith, 1981).

Self-disclosure has also been studied in roommate relationships. Taylor (1968) used roommate dyads in his study of self-disclosure over time in high revealer and low revealer dyads. He found that self-disclosure increased over time with high revealer dyads consistently self-disclosing more. There was a trend toward a widening gap between high-revealer and low-revealer dyads at greater levels of intimacy. Broder (1982) obtained high correlations between female roommates' reports of liking and both their own and their roommates' reports of self-disclosures. The correlations were stable across measurements taken at 2 days, 2 weeks, and 13 weeks after the start of the roommate relationships. Neither researcher provided any information about the content of the roommates' conversations or activities. Altland and Kaplan (1983) describe a board game designed to enhance roommate relationships by inducing increased self-disclosure, but do not discuss the issues of self-disclosure supposed to be of importance for roommate relationships or any other particulars, or present any tests of the game.

Two recent studies dealt with roommates' interaction. Although not directly measured, roommates' interaction was proposed as a cause of Wolff and Desiderato's (1980) finding that roommates of students participating in an assertiveness training program had higher assertiveness scores than roommates of students participating in a discussion group or in the control group. Berg (1984) examined relationships

among liking and satisfaction, self-disclosure, similarity, and social exchange in roommate relationships at 2 weeks' duration and again approximately 6 weeks later. He found that those who had decided not to room together the next year by the time the spring data were collected showed different overtime patterns than those who had decided to room together next year and those who were undecided. Those not planning to room together next year reported decreases in liking for their roommates while the other two groups' reports showed no change. They also reported decreases in help given them by their roommates while the other two groups reported increases. Those who decided not to live together the following year rated their current living arrangements less favorably compared to other available alternatives than did those who had decided to room together the following year or those who were undecided. They also saw themselves as more dissimilar to their roommates than did the other two groups. There were no differences among decision groups in perceptions of equity. Those who had decided not to room together next year reported less satisfaction than the other two decision groups in the fall as well as in the spring. Men evaluated their living arrangements compared to available alternatives less favorably in the spring than in the fall while womens' ratings showed little change. Men also rated their relationships as less equitable than did women and reported fewer instances of being helped by their roommates than women. Regardless of sex or decision group, roommates reported lower levels of satisfaction in the spring than in the fall, greater liklihood of receiving the kind of help from their roommates than the most desired, and slightly less equity in their relationships.

Regression analysis suggested that the degree to which roommates are rewarded by their partners and their ratings of their relationships compared to available alternatives will be, over time, the best predictors of liking and satisfaction. Although these are certainly valuable findings, they do not provide any information about the nature of interaction between roommates. Thus, although a number of studies on roommates have been conducted it seems that a descriptive study of communication between roommates could still contribute new information.

Research Questions

In keeping with the exploratory nature of this study, research questions were formulated rather than hypotheses. More specifically, the following questions were investigated:

1. How much time do roommates spend talking to each other?
2. What are the proportions of casual, serious, and relational communication in roommates' interaction?
3. What (topics) do roommates talk about?
4. What over-time patterns can be seen in the time roommates spend interacting, the frequency of serious and relational discussions, and the number and kind of topics discussed?
5. What over-time patterns can be seen in ratings of satisfaction with casual, serious, and relational discussions and with the overall relationship?
6. How do previously acquainted roommates' communication patterns and satisfaction ratings differ from those of previously unacquainted roommates?
7. How do the communication patterns over time and the satisfaction ratings of high-involvement relationships differ from those of low-involvement relationships?
8. How do the communication patterns of relatively satisfactory relationships differ from those of relatively unsatisfactory relationships?

CHAPTER II

METHODS

Variables

Since descriptive information about communication in roommate relationships is very limited, the variables selected were quite basic and relatively concrete. Several of them: time spent interacting, topic, and previous acquaintance, require no formal conceptual definition. Three interaction categories or types were used in the study: casual conversations, serious discussions about nonrelationship issues, and discussions about relationship issues. Casual conversations were defined as not-serious interactions, usually short in duration, light in tone, including chit-chat, joking around, "bull sessions," light conversation, and so on. Serious discussions about nonrelationship issues were defined as conversations with a serious tone, including conversations about serious issues or about personally important decisions, except for conversations about relationship issues. Discussions about relationship issues were defined as any conversations, regardless of tone, about the relationship, about joint activities, or joint plans, or any relational conflict. Since the term intimacy is already afflicted with many disparate definitions, many of which are inappropriate for a study of roommates, involvement was selected as a parallel concept. Involvement was defined as the degree to which the roommates share activities other than those necessary to maintain their quarters and have serious discussions. Conceptually, the sort of relational discussion

in which the relational partners comment positively on their relationship is also related to involvement. This type of conversation may occur too infrequently in the current sample to be used as a part of the operationalization of involvement. In the context of this study, a satisfactory relationship was defined as one consistently given relatively high satisfaction ratings by one member of the dyad. Naturally, some of the relationships given high satisfaction ratings by one member of the dyad may be much less satisfactory to his or her roommate. Nudd (1965) found differences in roommates' perceptions of behavior in the relationships. Ideally a bilateral definition of satisfaction would provide greater precision. The unilateral definition was adequate for this study, however, since satisfaction was measured using only 3 ordinal levels. Although Nudd (1965) found differences in perception, he reported no cases in which one roommate was satisfied with the relationship while the other was dissatisfied.

Data Collection

The data were collected in the context of a special-topics class on interpersonal communication held at Michigan State University in fall 1980. The students in the class acted as participant observers of their relationships with their roommates. Fifteen students, 12 women and 3 men were enrolled. Two of the women were roommates of each other. All were first-time roommates but six dyads were previously acquainted. Demographic characteristics of students and their roommates are given in Table 1. Unenrolled roommates of those enrolled in the class were provided an explanation of the project via a letter which assured them that they would not be in any way deceived or manipulated, that they

Table 1. Demographic characteristics of both participant observers and their roommates (n=13 dyads) at Michigan State University, fall quarter, 1980.

Characteristic	n
Age	
18	15
19	3
20	5
21+	3
Class level	
Freshman	17
Sophomore	3
Junior	5
Senior	1
Majors	
Communication	7
Business areas	6
No preference	5
Political Science	2
Telecommunication	2
Advertising	2
Medical arts	2
Hometown	
Detroit metro area	11
Michigan small city	6
Michigan college town	4
East Coast	3
Chicago suburbs	1
Pacific Coast	1
Family background	
Professional	7
Entrepreneurial	7
White-collar	5
Blue-collar	5
Unknown	2
Religion	
Protestant	11
Catholic	6
Jewish	4
None	2
Unknown	2
Catholic-Protestant	1
Political preference	
Independent/None	11
Democrat	5
Republican	5
Unknown	3
Liberal	1
Conservative	1

would remain anonymous, and that the data would be kept strictly confidential. All of the unenrolled roommates gave their consent to their roommates' participation in the study. Unenrolled roommates were asked to fill out some questionnaires on a voluntary basis during the term. If they did so, they received either a small sum of money or extra credit in an introductory communication course as compensation.

On the positive side, using a classroom setting for data collection made possible training of the students as observers by defining terms, stressing objectivity, and providing feedback. In addition, the biweekly meetings allowed establishment of rapport between the participant observers and the experimenter which could forestall biased reporting due to lack of participant trust in the experimenter. Certain aspects of the course were designed to enhance the development of rapport. For instance, all assignments were graded only as complete or incomplete, and class grades were calculated based on the percentage of assignments completed. Students usually had the opportunity to complete assignments initially submitted in incomplete form. By minimizing the instructor's judgment in grading, the potential barrier to rapport of student resentment of instructor judgment was also minimized. The instructor/experimenter also attempted to behave toward the students/observers in a consistently friendly and trustworthy manner while avoiding any behavior that might influence their attitudes or behavior toward their roommates. Advice or any kind of commentary specific to any of the students' relationships with their roommates was strictly avoided.

A negative aspect of the class setting is the increased potential for reactivity. Since the students were studying interpersonal communication they should have been applying some of the concepts learned in

the course to their relationships. The crucial question is whether these applications would have had much influence on the events the students were observing or whether their main influence would have been on the students' observation and reporting. Some influence on observation and reporting were desired, notably use of shared terms and heightened awareness of communication. There may have been some reactive effects on the relationships, but it is not possible that these could have created biases in the direction of hypotheses because there were none. It seems likely that the students' habitual patterns of interpersonal behavior were mostly resistant to change, however, care must be taken in making generalizations from these data.

The main data of the study are the observations made by the participants of their relationships with their roommates. These were recorded daily on log sheets. One reason for daily recording was that, with no solid information on how volatile these relationships might be, but suspecting that they would be susceptible to rapid change due to their newness and the age of the participants, it seemed best to choose the most frequent interval practical under the circumstances. Other reasons for daily recording were to minimize the potentially biasing effects of forgetting details of the observations by relatively frequent recording and to facilitate consistency of recording. Participants were encouraged to record their observations at the same time each day to make it part of their daily routines. In this way, skipping days would be less likely, and each recording would cover the same amount of time. Daily recording also minimized the effects of generalizing, since the time period is short and well-defined.

The daily log sheets consisted of five sections, on the total relationship, casual conversations, serious discussions on nonrelationship issues, discussions about relationship issues, and external factors. Each of the first four sections included a rating of the participant observer's feelings about the relationship or communication recorded on a set of four semantic-differential items, good-bad, tense-relaxed, happy-sad, and unsatisfied-satisfied. In the section on the total relationship, observers estimated the amount of waking time spent in the roommate's presence in hours and minutes, excluding times when communication was impossible, for example, during a lecture class when the roommates are seated apart. Observers also described efforts by the roommates to be together or apart if any.

The three communication categories were defined for the observers and examples were categorized in class. Casual conversations were defined as non-serious interactions, usually short, light in tone, including chit-chat, small talk, joking around, "bull sessions," light conversations, and so on. Serious discussions about nonrelationship issues were defined as conversations with a serious tone, including conversations about serious issues, or about decisions you have to make that matter to you, except for conversations about relationship issues. Discussions about relationship issues were defined as any conversation regardless of tone about the relationship, about joint activities, or joint plans, or any relationship conflict.

For casual conversations and serious discussions about nonrelationship issues observers stated how many conversations, estimated the total amount of time spent in these conversations, and listed the topics that were discussed. For relational discussions observers

described each interaction, including its topic, length, and whether they saw it as a conflict.

In the fifth section observers noted any factors outside the relationship that they thought were likely to affect the relationship. Examples given to the students were a big cluster of mid-terms coming up, a new involvement or breakup with a boyfriend or girlfriend, or a new part-time job. Finally, observers recorded any other observations or comments they had about the relationship or relational communication that day. Observers were encouraged to feel responsible and autonomous with regard to their role as observers, so any observations beyond what the log sheets specifically solicited were welcomed.

Basic and concrete variables were selected for this exploratory study. An additional consideration in the selection of variables was the kind of observations the participants could reasonably be expected to record and the type of observations participants are best able to provide. Some of the variables, time estimates and conversation topics, are familiar and rather concrete concepts. This should minimize the potential for bias compared to concepts which are more abstract, less familiar, or require more judgment, such as power or empathy. These are also aspects of communication that participants are likely to pay some attention to normally, unlike microfeatures of interaction such as turn-taking behavior. It seems that participants would have less difficulty remembering accurately something that is normally attended to than something that normally receives little attention. Also, it seems less likely to distort the communication process to pay more attention to something normally attended to than to try to pay attention to aspects of communication which are not normally paid much

conscious attention as separate items. Communicators' feelings about their relationships and relational communication are main determinants of their future interaction and relationship. This information can only be obtained from the relational participants. Therefore, in order to make the best use of relational participants as observers, it seemed best to solicit ratings of their feelings about their relationships and interaction. The only difficulty that relational participants are likely to have in making these ratings is in making independent ratings of the total relationship and each of the three communication types. For this reason, correlations between these measures on a daily basis will not be calculated.

Besides the selection of variables, two procedures should help minimize bias and error in reporting. The first, daily recording, has already been discussed. The second is that the observers knew in advance what observations they would be recording. Except in a perception or unaided memory study, no researcher would send observers into the field without explaining exactly what behaviors they were to observe. Yet relational participants are often asked about their interaction only on a post-hoc basis. It is not surprising that in many cases they never paid attention to or did not recall the interaction aspects of interest to the researchers. Advance knowledge of the variables of interest should facilitate recall. Note-taking during the day was also an option open to the participant observers although they were warned not to do so during interactions with their roommates.

After examining the topics listed by the participants for nonrelational conversations two topic category schemes were devised. The

first is a fairly exhaustive descriptive category scheme. It was designed to provide a fairly detailed descriptive information on what roommate pairs talked about. Here are the categories and definitions.

Descriptive Content Categories for Topics

1. Food: food, specific food items, nonalcoholic beverages, hunger, or food preferences, except where mentioned in connection with a reducing diet.
2. Drink: alcohol, booze, drinks, drinking, or specific alcoholic beverages.
3. Drugs: drugs, specific drugs, or drug-taking (besides alcohol) except where specified as a medicine for a health problem.
4. Clothing/style: clothing, clothes or specific clothing items, hairstyles, or other grooming or cosmetic styles, or jewelry.
5. Music: music, musical styles, musicians, radio stations, concerts, records, etc., except where music is referred to as an academic subject or as an activity in which a member of the dyad is an active participant.
6. Drama: television entertainment (not television sets), movies, or plays.
7. Print: magazines, newspapers, or books, except those described as textbooks or other assigned readings or research for a class.
8. Spectator Sports: spectator sports, such as college football, sports teams to which neither of the pair belongs, and sporting events. Also, just "sports" or specific sports popular as spectator sports such as football, baseball, basketball, etc. will be included in this catefory unless there is an indication that one

of the dyad is a participant.

9. Participant Sports: games or specific games, sports in which at least one of the pair participates, athletic activities such as running, and specific sports such as skiing which are not major spectator sports unless there is indication to the contrary, e.g. "Olympic Ski Team."
10. Travel: traveling, trips (other than home), means of traveling, or places to travel.
11. Politics: state, federal, or local politics, politicians, political events or events with political impact, not including dorm or campus politics.
12. Sex: sex or sexual activities. Topic description must be quite clear that sex was the topic: "what my girlfriend and I did last night" is not a clear enough indication.
13. Religion: religion, faith, religious issues, moral or ethical issues, church, church-going, or other religious activities or observances. Does not include Thanksgiving or Christmas as these are often used as catchall terms for the vacation periods.
14. Campus: characteristics of the campus or campus events.
15. Weather: local weather.
16. Dorm: characteristics of the dorm (outside the room), dorm events or dorm activities.
17. Academics: classes, academic subjects, studying, textbooks and assignments, professors or instructors, etc.
18. Home: home, hometowns, high school, home life, etc.
19. Financial: money or other financial topics, except where discussed as a political issue, e.g. fiscal policy, taxes, etc.

20. Health/Sickness: illness, treatment, feelings of sickness or wellness, or explicitly health-related practices such as taking vitamins.
21. Weight control: weight, reducing diets, effects of diet on weight, exercise per se, or other items pertaining to weight control.
22. Jobs: current part-time employment, work, jobs, or prospects for vacation-time employment. Does not include potential post-graduation employment.
23. Careers: careers, occupations, or prospective post-graduation employment. If there is ambiguity between a topic such as "engineering" dealing with a career or an academic subject, it will be coded as an academic subject.
24. External Messages: mail, letters, phone calls, or calls.
25. Opposite Sex: "girls" by males or "guys" by females, dates, "scopes," boyfriends, girlfriends, etc.
26. Family: family or family members identified by relational title.
27. Third Roommate: a person who shares the room or apartment with the dyad.
28. Friends: friends, people identified as friends of one member of the dyad.
29. Shared Friends: our friends, mutual friends, people identified as friends of both members of the dyad, suitemates, or dorm neighbors.
30. People in General: abstract discussion of kinds or characteristics of people which does not seem to refer to specific individuals.

31. Events in the Personal Sphere: birthdays, holidays, invitations, and so on, except when the discussion focuses on making plans.
32. Activities While Separated: sharing events of day, weekend, or other period of separation.
33. Shared Activities: events or activities in which both roommates participated or will participate.
34. Plans/Scheduling: co-ordination of the pair's plans or schedules, except for planning something to do in the room or other mutual activities.
35. Room Management: room decorating or things for the room, activities needed to maintain the "roomhold" or joint room activities such as hosting a party in the room.
36. Play: conversations described as small talk with no topic indicated, jokes, horsing around, etc.
37. Other Objects: any animal or thing not included in previous categories.
38. Other People: any person not included in previous categories.
39. Other Activities: any activities not included in previous categories.
40. Miscellaneous: any topic not included in previous categories.
41. Relationship Itself: our relationship, getting along, rooming together, and any other comments on the nature of their relationship.
42. Self: myself, him or herself, personal problems, personal experiences, feelings, or other conversation about members of the dyad as individuals.

43. News Events: state, national, or world news events which are not political, or any news event not specified as campus news.

44. Exchange: loans, gifts, trades, or any conversation concerning transfer of something of value between the relational partners.

The second category scheme was designed for the purpose of comparing the kinds of topics discussed by different roommate pairs. In this scheme 43 of the categories from the descriptive category scheme are grouped into four larger categories. The first category, External, includes topics which are essentially external to the relationship, activities or events in which neither roommate participates; both are essentially spectators. The categories included are: music, drama, print, spectator sports, politics, campus, weather, dorm, people in general, news events, and other objects. The second category, Personal, includes topics which concern one or both of the roommates as individuals. Although each may be concerned, the issue is essentially individual. For example, each roommate might be concerned with getting good grades, but it is not their concern as a pair. Also included are activities in which one or both participate. The personal category includes the descriptive content categories, clothing/style, participant sports, travel, sex, religion, home, food, drink, drugs, academics, financial, health/sickness, weight control, jobs, careers, external messages, opposite sex, family, events in the personal sphere, activities while separated, friends, self, other activities and other people. The third category concerns shared experience and is called the Shared category. Included are: third roommate, shared activities, play, and shared friends. The fourth category of topics is Relational Management

and includes conversations in which the roommates discuss managing their shared resources, including time and space. The topic categories included are plans/scheduling, room management, the relationship itself, and exchange.

CHAPTER III

RESULTS

Preliminary Analyses

A preliminary analysis was conducted to determine whether the participant observers used the semantic differential rating items (good-bad, relaxed-tense, happy-sad, satisfied-unsatisfied) on the log sheets independently or as a single scale. A Cronbach's Alpha reliability coefficient was calculated for the four items each participant observer used in rating his or her total relationship over the entire quarter. Reliabilities ranged from .52 to .75 with a mean of .70 and standard deviation of .064. Only one reliability was less than .60. Interitem correlations for this low-reliability case were calculated and examined, but showed no evidence of clustering or grouping among the items. Even for the lowest-reliability case, interitem correlations ranged from .30 to .68, which are too high to be considered independent ratings. Therefore analyses of the satisfaction ratings used scores created by summing the four items. These scores had a range of 4 to 28, with a midpoint of 16.

The raw data were examined for evidence of naturally occurring divisions into periods. The only such division observed was Thanksgiving Break. All of the dyads were separated during this time, most of them for 3 to 4 days.

A tendency toward a weekly cycle, or at least differences between weekdays and weekend days, was observed in many of the dyads. Four of

the dyads were separated every or almost every weekend, and most of the rest had some weekend separations. When both members of a dyad stayed on campus, they frequently spent much more time together and time interacting than on weekdays. For this reason, weeks was chosen as a unit of time for analyzing frequency of serious and relational conversations. Weeks as used here begin on Thursday and end on Wednesday except for the week following Thanksgiving Break, which begins on Monday and ends on Sunday.

Larger time periods were defined for the purpose of making statistical comparisons of the value of communication and satisfaction measures over time. Since there was evidence of differences between different days of the week it was desirable to have each category include the same numbers of each day of the week. Also, Thanksgiving Break needed to be considered. Four time periods were defined, the first, second, and third 3-week periods of the term, ending at the beginning of Thanksgiving Break, and a 1-week period following Thanksgiving Break. Thus Period 1 is days 1 through 21, Period 2 is days 22 through 42, Period 3 is days 43 through 63, and Period 4 is the first 7 days that this dyad was together following Thanksgiving Break. Period 4 is worthy of separate consideration not only because of the discontinuity created by Thanksgiving but also because it was the last week of the quarter. Students' schedules and activities at this time may differ quite a bit from their usual habits as they prepare and submit term papers and prepare for final exams. Students may also experience heightened stress and anxiety at this time, which could easily effect their communication with their roommates. Since the majority of the

student participants were new to the university and about half were freshmen, they may have been particularly prone to anxiety about the outcome of their classes. These factors could cause communication in this period to be atypical, indicating that it should be examined separately rather than included with a unit beginning before Thanksgiving Break.

Addressing the Research Questions

The overall approach of this study was exploratory, to observe and describe relational phenomena in a relatively natural setting and identify aspects of the relationships worthy of further study. In keeping with this goal and approach, exploratory techniques were used, individual cases were examined in detail, and statistical tests were conducted at a lower alpha level than is standard for hypothesis testing.

The main exploratory technique used was a graphing procedure presented by Tukey (1977) as "smoothing a sequence." The object of this procedure is to show the overall shape or form of sequential data, especially when there are no *a priori* grounds for expecting it to have a particular shape. The basis of the procedure is taking running medians, that is, the median of data, 1, 2, and 3, then data 2, 3, and 4, then data 3, 4, and 5 and so on. Each median becomes the smoothed-sequence value for the middle position of the data sequence from which it was taken. For example, the median of data 1, 2, and 3 becomes value 2 of the smoothed sequence, the median of data 2, 3, and 4 becomes value 3 of the smoothed sequence and so on. This basic process, along with procedures for dealing with end values and small peaks and valleys, is repeated until there is no change from further smoothing. An

investigator may choose to leave some values unsmoothed or partially smoothed if there is reason to attach particular significance to those values, as might be the case if the values were associated with highly out-of-the-ordinary events. Each such analysis is based on a series of graphs and calculations, but only the original raw data graph and the final smooth graph will be presented.

Individual cases were examined in some detail for this study because whenever more than one main over-time pattern existed, examining only the whole group would be likely to obscure all the patterning. The sequential graphing technique used also provides the clearest illustration of one case at a time; when several cases are graphed on the same axes the picture is much more obscure. (Other techniques are more suitable for groups, but they work best with groups large enough to provide relatively stable medians. This was not true for the groups identified in this study, the largest of which included 4 cases). Therefore, individual graphs are presented for each analysis, along with selected group graphs.

In examining the research questions statistical analyses were used to test for differences across time periods and between groups of dyads formed on the basis of differences in previous acquaintance, involvement, and satisfaction. These tests were intended to be only initial assays of relationships between pairs of variables but their use will help make the research more comprehensible and provide a criterion of the strength of associations observed among variables.

Nonparametric techniques were used in these analyses because the distribution of these variables in the population is unknown. The

current sample was too small to provide much information about the shape of the population distribution, and the literature does not provide any either. The sample was also too small for any asymptotic assumptions to apply. Under these circumstances the assumptions of normality and homoskedasticity were not reasonable.

The nonparametric tests used had asymptotic relative efficiencies of 86.4% of the power of the analogous parametric test to 95.5% of the power of the analogous parametric test (Seigel, 1956). Since this sample was relatively small, actual power would be lower. To partially compensate for the lower power of the nonparametric tests, alpha was set at .10. In this exploratory situation, in which the goal is to identify any relationships of interest among the variables, it seemed that the consequences of Type II error would be more regrettable than those of Type I error. Detecting a weak or idiosyncratic relationship which would be subsequently refuted by other research did not seem as bad as failing to detect potentially important relationships. However, those tests which are significant at the conventional alpha level of .05 have been identified.

Research Question 1: How much time do roommates spend talking to each other?

Time Interacting (TI) was the daily sum of the time participant observers reported spending in casual conversations, serious discussions, and relational discussions. Time Together (TT) was the daily amount of waking time participant observers reported being with their roommates when interaction was possible. Time Interacting as a Fraction of Time Together (TI/TT) was the daily quotient of time interacting divided by time together. The overall mean for time interacting was 1.91 hours

per day, with a standard deviation of means of 1.74. The range of this variable across relationships was considerable, from a dyad mean of .111 hours per day to 5.11 hours per day. Time interacting as a fraction of time together had an overall mean of .448 and a standard deviation of means of .194, ranging from a dyad mean of .053 to a dyad mean of .714.

Research Question 2: What are the proportions of casual, serious and relational communication in roommates' interaction?

Participant observers' reports of time spent in casual, serious, and relational conversations each day were divided by time interacting for the same day to form the variables Time spent in Casual Conversation as a Fraction of Time Interacting (TC/TI), Time spent in Serious Discussions as a Fraction of Time Interacting (TS/TI), and Time spent in Relational Discussion as a Fraction of Time Interacting (TR/TI). The daily quotients were used in calculating the means found in Table 2. Casual conversation clearly dominates roommates' interaction, taking up about two-thirds of the time spent interacting. Serious and relational discussions each occupy a little under one sixth of the time spent in interaction. The amount of time roommates spend in relational interaction varies the least between relationships while time spent in casual conversation varies the most. It follows that most of the variation in time interacting is due to differences in the time spent in casual conversations.

Research Question 3: What do roommates talk about?

Topics listed by the participant observers on their daily log sheet were both coded by descriptive content categories and checked

Tab
com
qua

Tim
(

Tim
(

Tim
(

Tim
(

Tim
Tim

Tim
Tim

Tim
Tim

by c

were

desc

quer

ticu

shou

of e

grad

pect

issu

freq

of t

Table 2. Grand means and standard deviations of means of variables of communication between roommate dyads at Michigan State University, fall quarter, 1980.

Variable	n	M	SD
Time Casual (hours)	13	1.40	1.63
Time Serious (hours)	13	.311	.316
Time Relational (hours)	11	.172	.135
Time Interacting (hours)	12	1.91	1.74
$\frac{\text{Time Casual}}{\text{Time Interacting}}$	12	.678	.233
$\frac{\text{Time Serious}}{\text{Time Interacting}}$	12	.176	.179
$\frac{\text{Time Relational}}{\text{Time Interacting}}$	11	.124	.106

by one rater. Totals for appropriate descriptive content categories were summed to form comparison categories. Aggregate frequencies for descriptive categories are given in Table 3. None of three most frequent topics, academics, the opposite sex, and room management, is particularly surprising considering the nature of the participants. It should be noted that conversations about academics include discussions of events in classes, instructors, and commentary on assignments and grades. Many of the conversations observed seem to concern these aspects of academic life rather than the content of courses or scholarly issues. The frequency of conversations about food, the fourth most frequent topic, might be misleading without the information that many of the conversations took place at meals, often dormitory cafeteria

Table 3. Aggregate frequencies of descriptive topics of conversations between roommates (n = 12 dyads) at Michigan State University, fall quarter, 1980.

Topic	n
Academics	507
Opposite sex	319
Room management	308
Food	266
Play	197
Self	174
Activities while separated	173
Shared activities	172
Events in the personal sphere	164
Music	160
Other objects	140
Friends	133
Family	132
Plans/scheduling	125
Health/sickness	114
Drama	112
Clothing/style	110
Spectator sports	100
Other people	96
Financial	93
Home	90
Other activities	90
External messages	90
Shared friends	83
Dorm	80
Exchange	79
Weight control	63
Politics	61
Relationship itself	60
Religion	56
Miscellaneous	55
Weather	51
Third roommate	45
Campus	42
Drink	40
Jobs	33
Participant sports	32
Print	28
News events	26
Sex	23
Travel	22
People in general	14
Drugs	10
Careers	4

meals, a situation which normally elicits commentary on the food. The low frequency categories are a little more surprising. All the discussions on the topic of careers, the least frequent topic occurred in one relationship in which one roommate was a senior. Drugs, the second lowest topic, were discussed by about half the dyads, mostly only once. It seems that the participants were not regular drug users, which is not surprising because drug users would be unlikely to volunteer for a study of this type in any case. Several of the conversations reported indicated negative attitudes toward drug use. People in general was the third-least frequent topic, but topics dealing with specific people show up quite high on the list. The rather low frequencies of politics and news events are worth noting. The total for politics is probably atypically high because this was the fall of a Presidential election year, the first election in which many of the participants were able to vote. Most of the political discussions concerned the Presidential contest.

In order to provide a more general view of roommates' conversations, some of the descriptive content categories were grouped forming several somewhat broader categories. The new categories formed in this way were: People, which consists of opposite sex, friends, family, other people, shared friends, third roommate, and people in general categories, Recreation, which consists of music, drama, spectator sports, participant sports, print, and travel categories, Personal Events/Activities, which consists of activities while separated, shared activities, events in the personal sphere, and external messages categories, News and Public Affairs, which consists of news events and politics categories,

Irre

gori

ment

and

Imag

gori

heal

reli

cate

peop

sona

quer

topi

tha

a la

top

shi

Res

sec

Fig

the

gra

Immediate Environment, which consists of dorm, campus, and weather categories, Coordination, which consists of plans-scheduling, room management, and exchange categories, Alcohol/drugs, which consists of drink and drugs, Employment, which consists of jobs and careers, and Self-Image, which consists of self, clothing/style, and weight control categories. Several categories, academics, food, play, other objects, health/sickness, financial, home, other activities, relationship itself, religion, miscellaneous, and sex, were left ungrouped. Totals for these categories are shown in Table 4. When these categories were used, people became the most frequent topic of conversation followed by personal events/activities, academics, and coordination. The least frequent topics were sex, employment, and alcohol/drugs.

The mean frequencies and standard deviations of the comparison topic categories are shown in Table 5. Topics in the personal category, that is, of individual interest or concern, were the most frequent by a large margin. Comparatively little interest was shown in external topics. Relational topics showed the least variation among relationships.

Research Question 4: What over-time patterns can be seen in the time roommates spend interacting, the frequency of serious and relational discussions, and the number and kind of topics discussed?

Time Spent Interacting. The graphs of the raw data and smoothed sequences for time spent interacting over the entire term are shown in Figure 1. Note that the small carats of the horizontal axis mark off the four large time periods: this will be done for all the over-time graphs. The scale on the vertical axes of these graphs varies from

Table 4. Aggregate frequencies of grouped descriptive topics of conversations between roommates (n = 12 dyads) at Michigan State University, fall quarter, 1980.

Topics	n
People	822
Personal Events/Activities	595
Academics	507
Coordination	512
Recreation	454
Self-Image	347
Food	266
Play	197
Immediate Environment	173
Other Objects	140
Health/Sickness	114
Financial	93
Home	90
Other Activities	90
News and Public Affairs	87
Relationship Itself	60
Religion	56
Miscellaneous	55
Alcohol/drugs	50
Employment	37
Sex	23

Table 5. Mean frequencies and standard deviations of comparison categories of topics discussed by roommates (n = 12 dyads) at Michigan State University, fall quarter, 1980.

Category	Mean frequency	SD
Personal	236.00	139.53
External	68.83	48.43
Relational	47.67	23.23
Shared	40.58	30.86

Figure 1. Daily interaction time (TI) by days of fall quarter, 1980 at Michigan State University for each of 12 dyads.

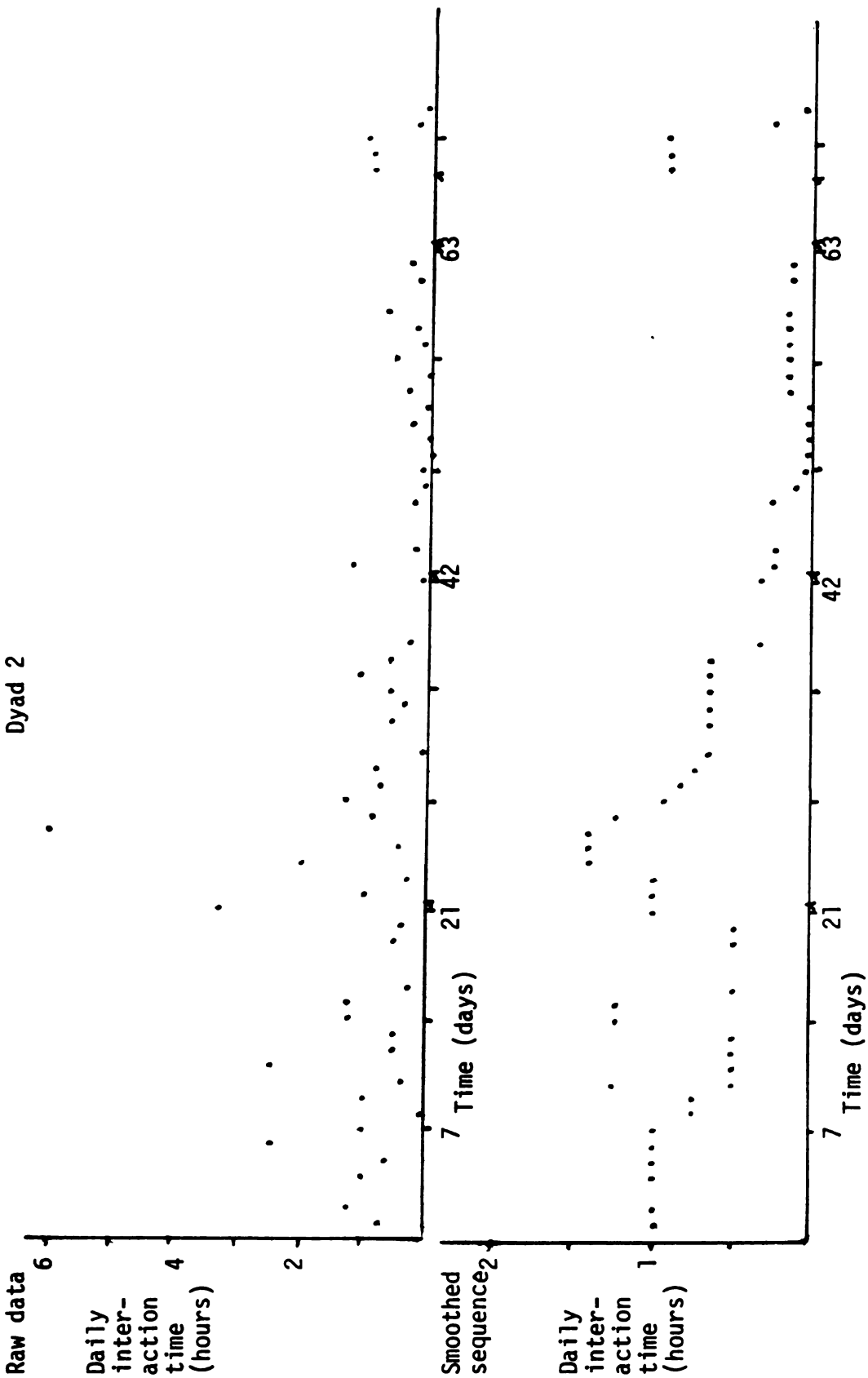

Dyad 2
Raw data
Daily inter-action time (hours)
6
4
2
7
21
42
63
Time (days)
Smoothed sequence
2
1
Daily inter-action time (hours)
7
21
42
63
Time (days)

Figure 1

Figure 1

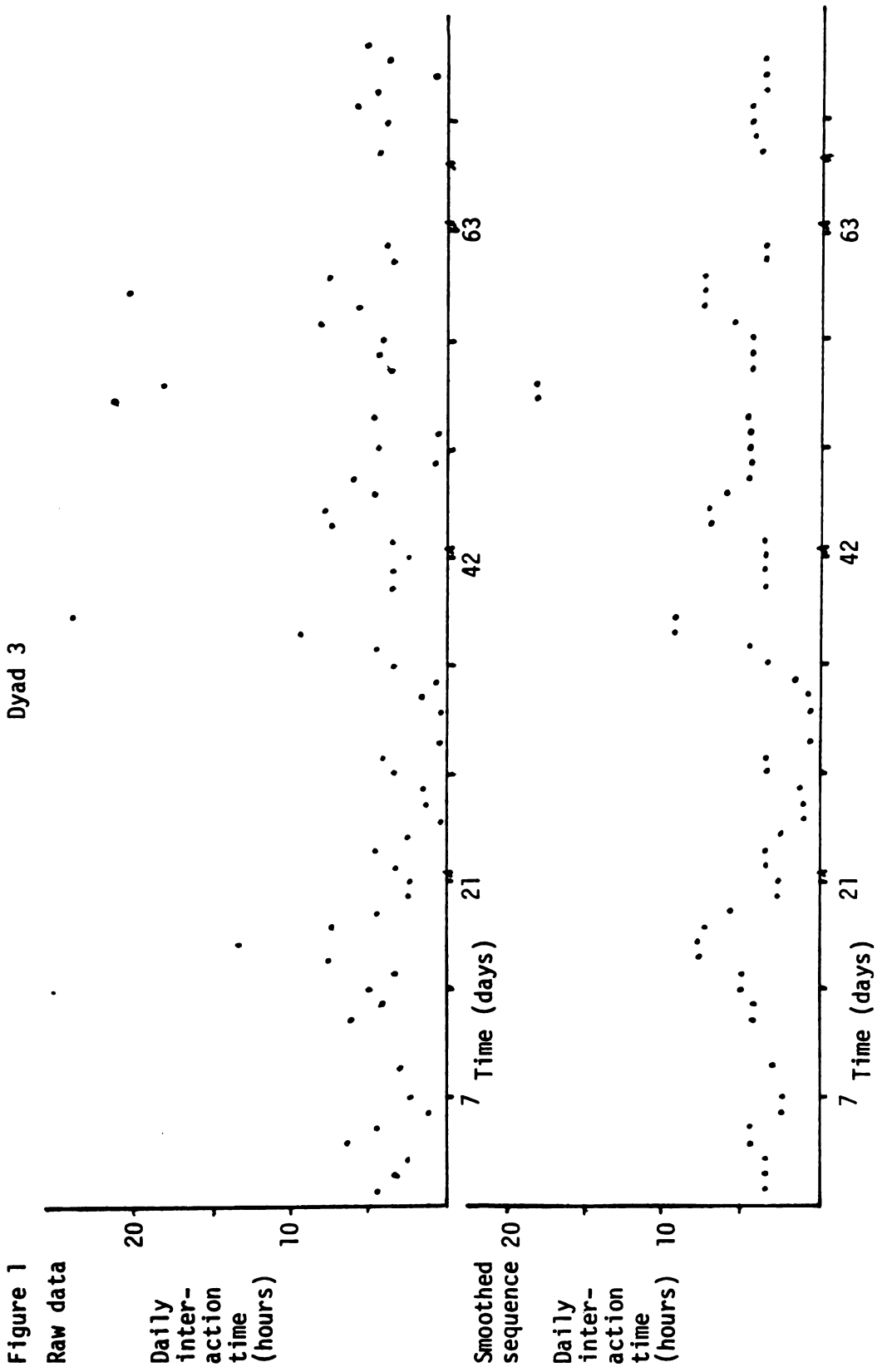


Figure 1
Raw data
Dyad 3
Daily interaction time (hours)
20
10
7
21
42
63
Time (days)
Smoothed sequence
Daily interaction time (hours)
20
10
7
21
42
63
Time (days)

Figure 1

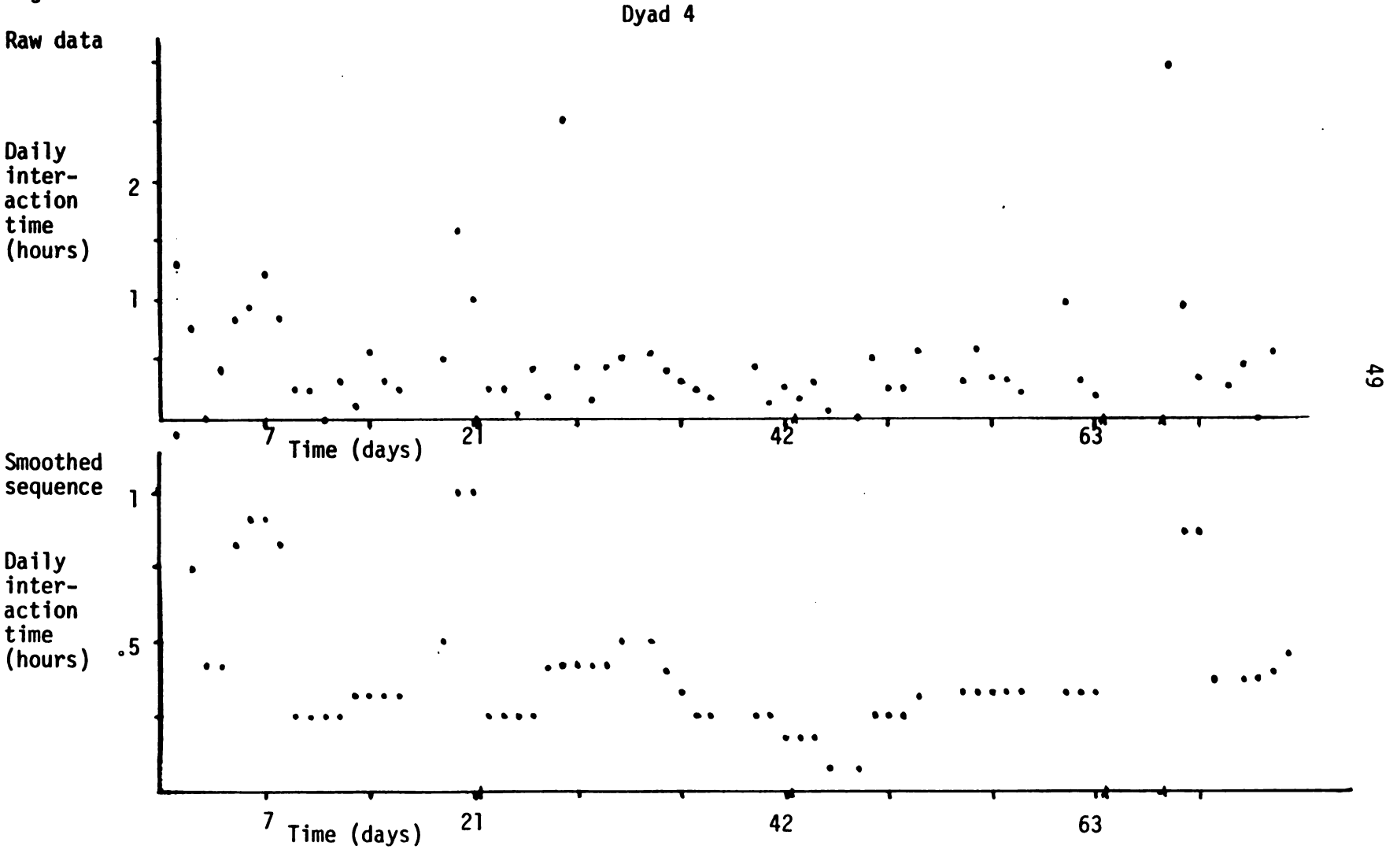

Dyad 4
Raw data
Daily inter-action time (hours)
2
1
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
1
.5
7
21
42
63
Time (days)

Figure 1

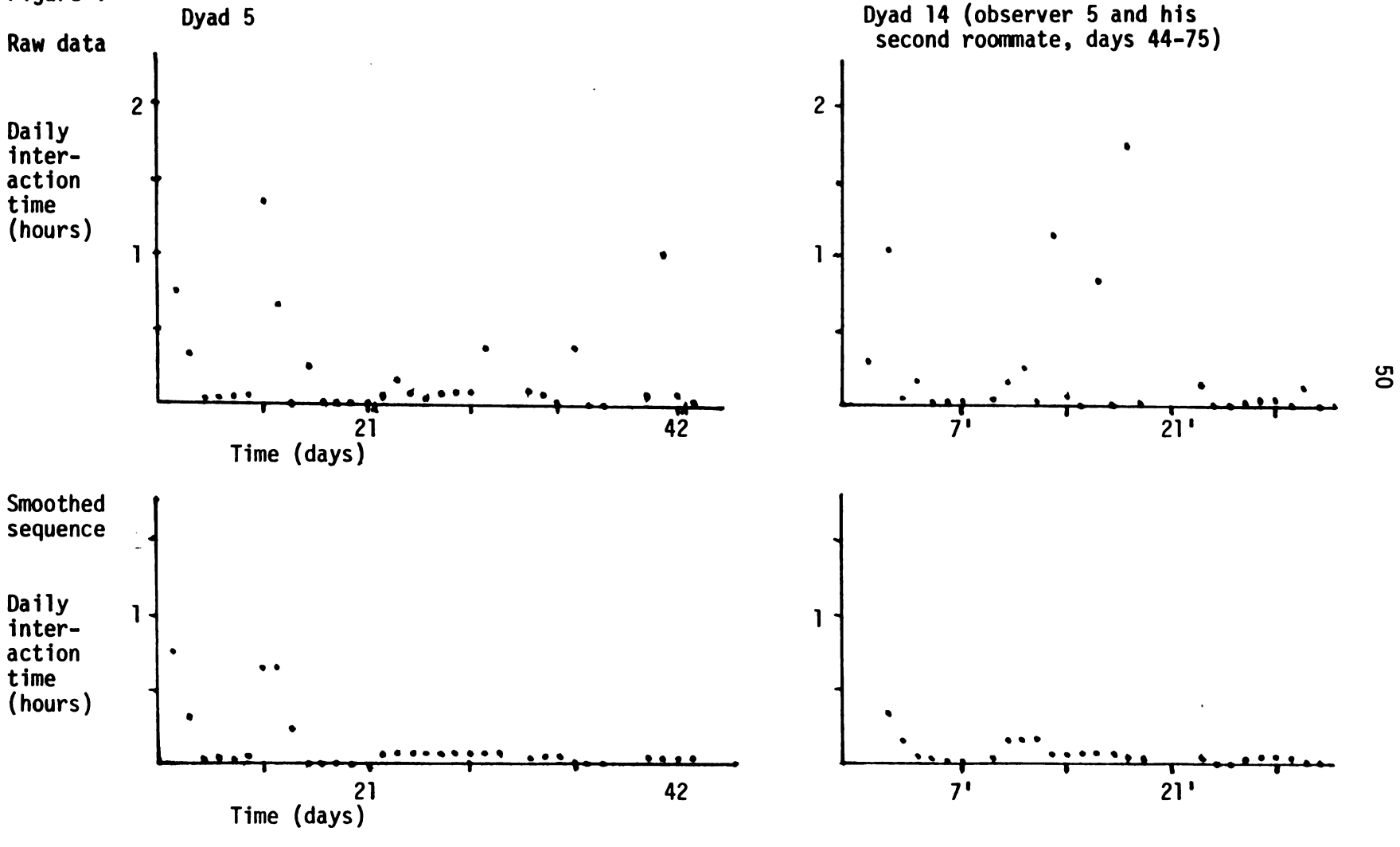
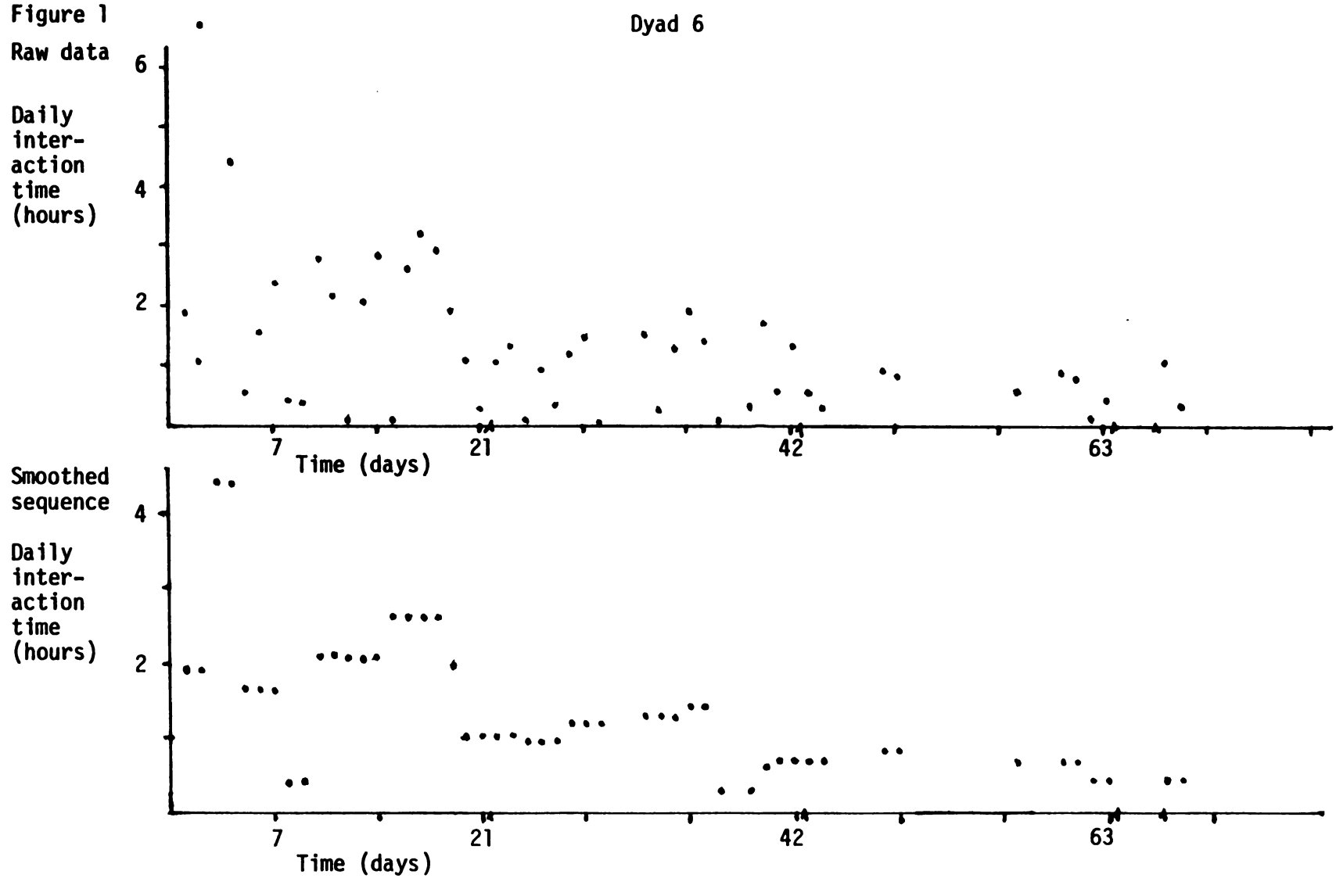

Raw data
Dyad 5
Dyad 14 (observer 5 and his second roommate, days 44-75)
Daily interaction time (hours)
2
1
21
42
7'
21'
Time (days)
Smoothed sequence
Daily interaction time (hours)
1
21
42
7'
21'
Time (days)

Figure 1


Dyad 6
Raw data
Daily inter-action time (hours)
6
4
2
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
4
2
7
21
42
63
Time (days)

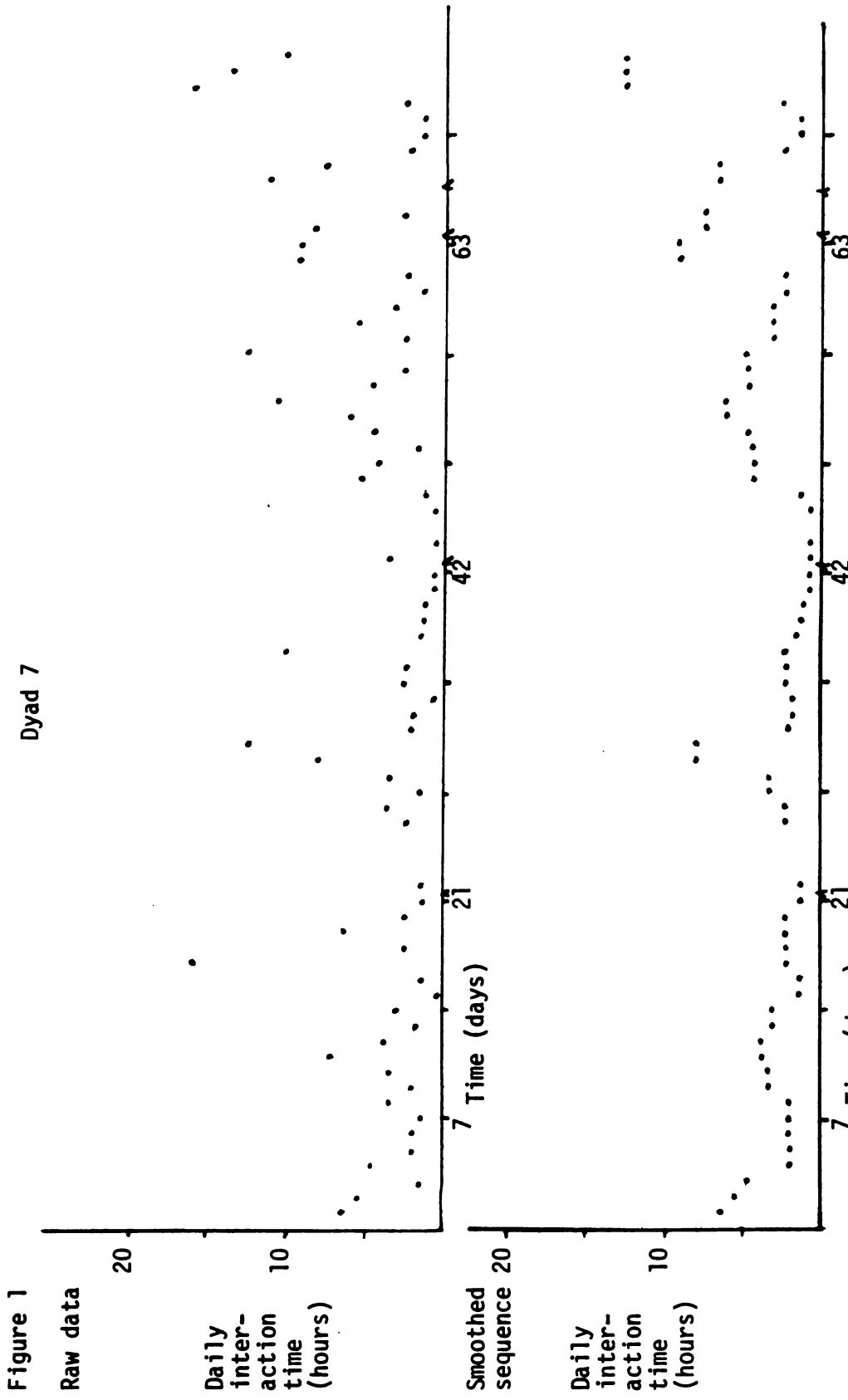

Dyad 7
Raw data
Daily inter-action time (hours)
20
10
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
20
10
7
21
42
63
Time (days)

Figure 1

Figure 1

Raw data /

Dyad 9

Figure 1

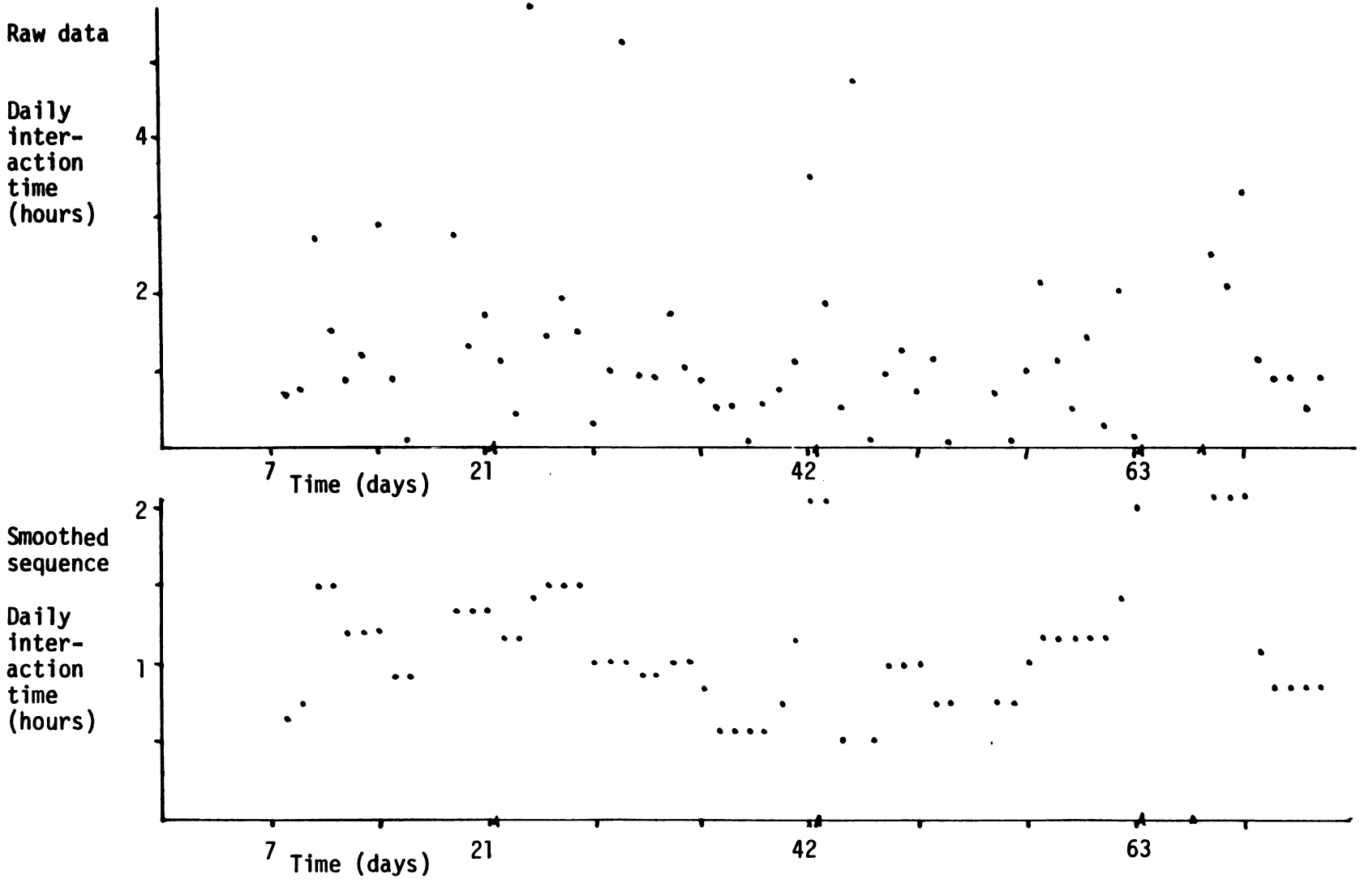

Dyad 9
Raw data
Daily inter-action time (hours)
4
2
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
2
1
7
21
42
63
Time (days)

Figure 1

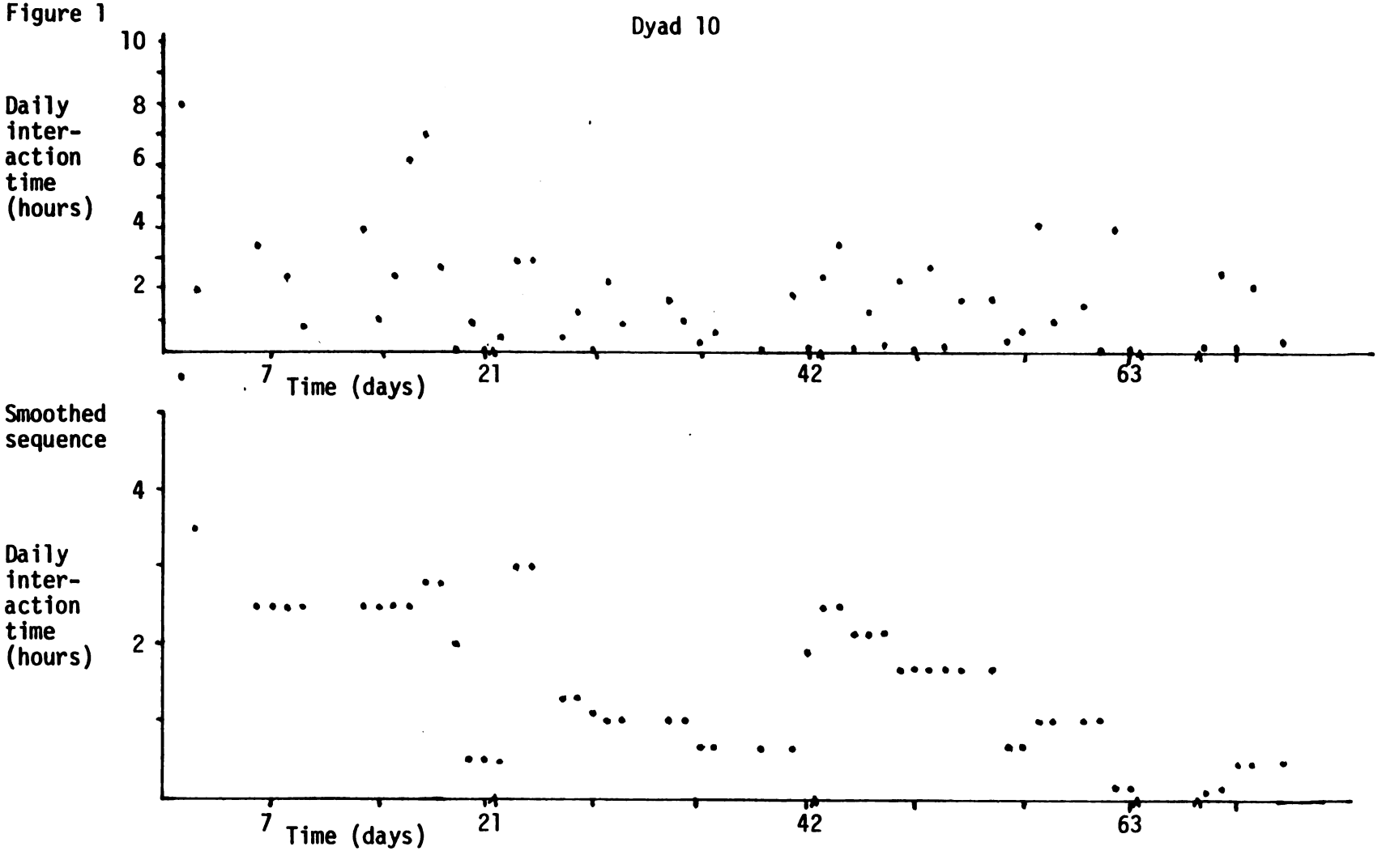

Dyad 10
Daily interaction time (hours)
10
8
6
4
2
7
21
42
63
Time (days)
Smoothed sequence
Daily interaction time (hours)
4
2
7
21
42
63
Time (days)

Figure 1

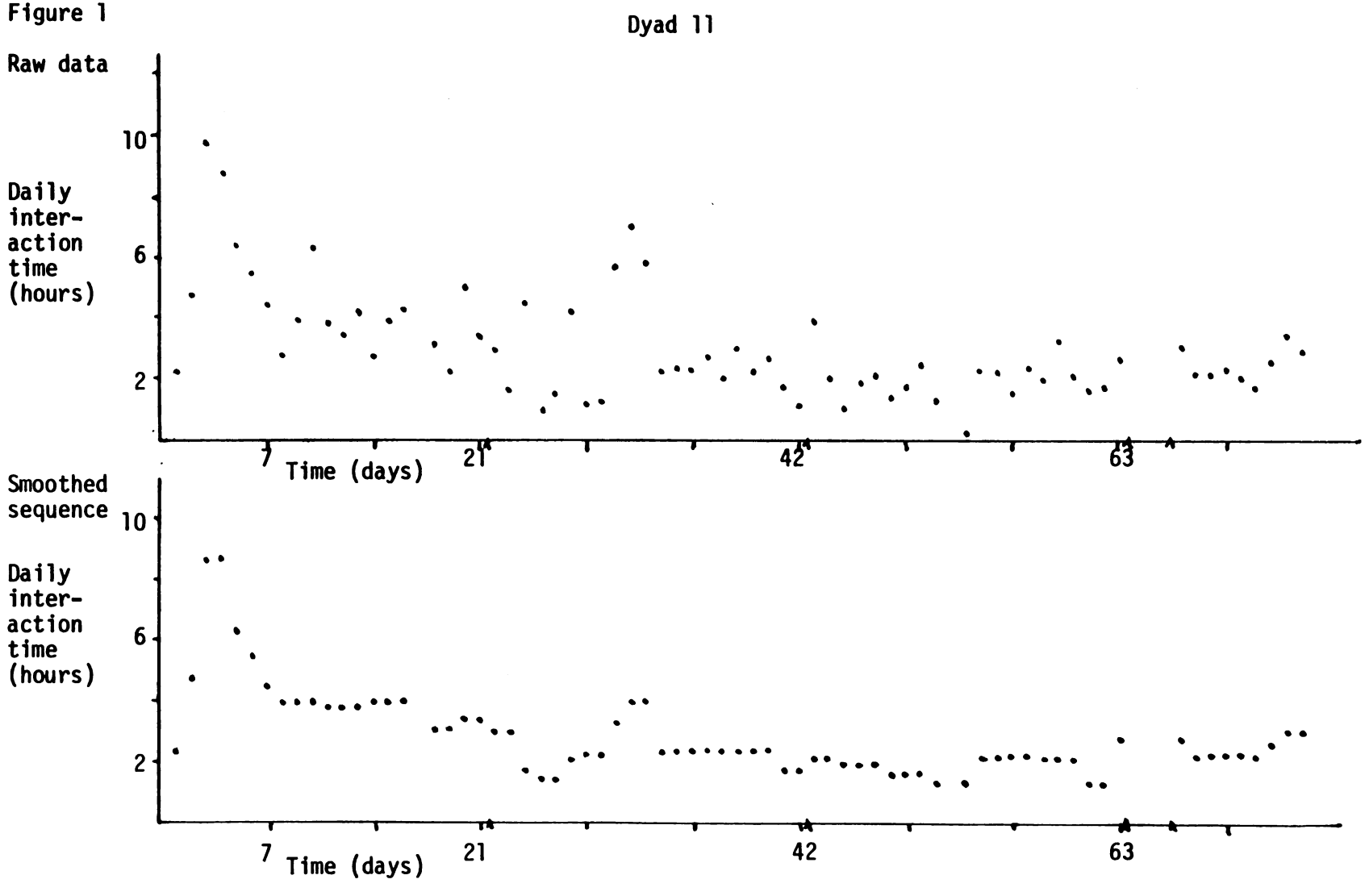

Dyad 11
Raw data
Daily inter-action time (hours)
10
6
2
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
10
6
2
7
21
42
63
Time (days)

Figure 1

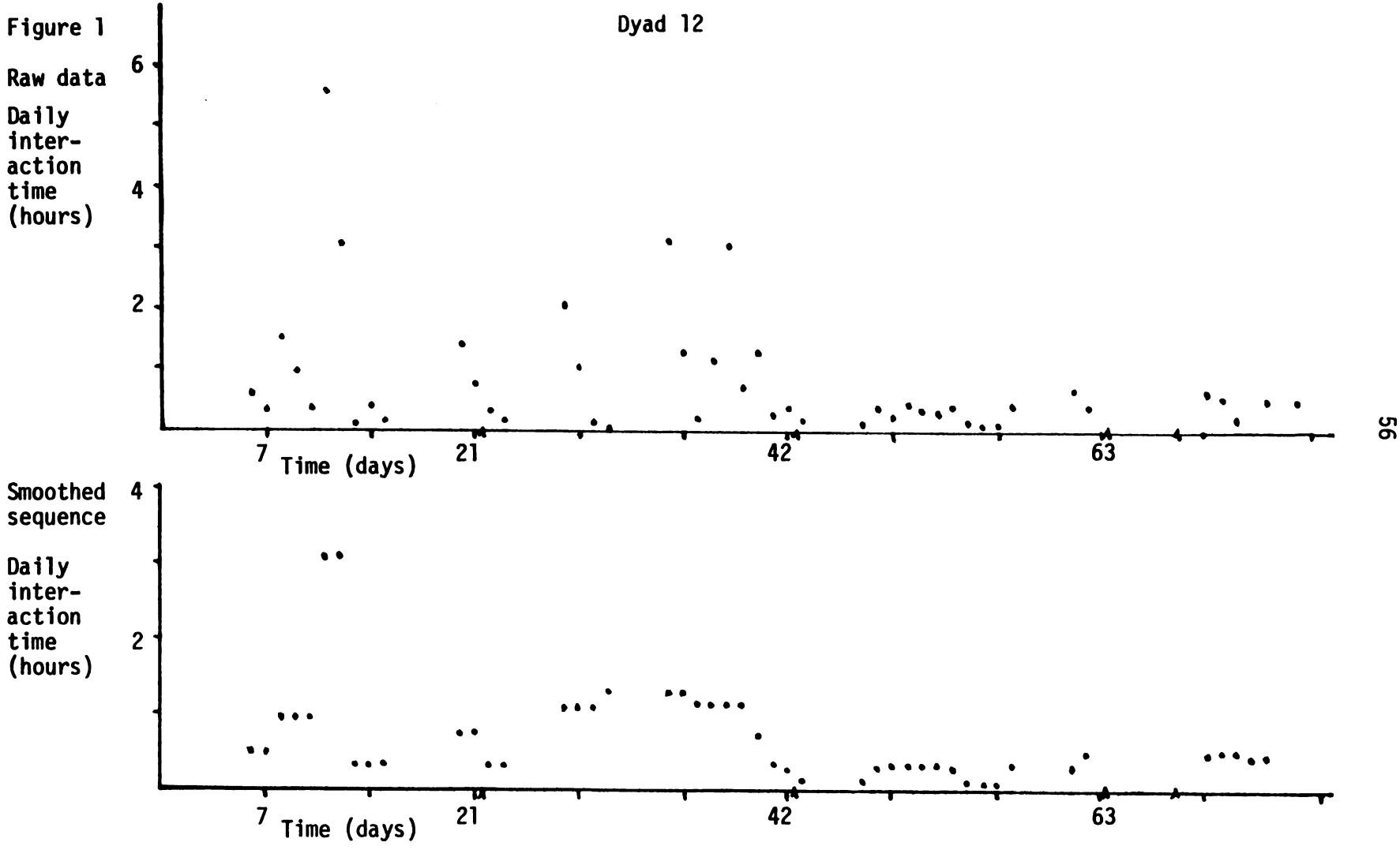
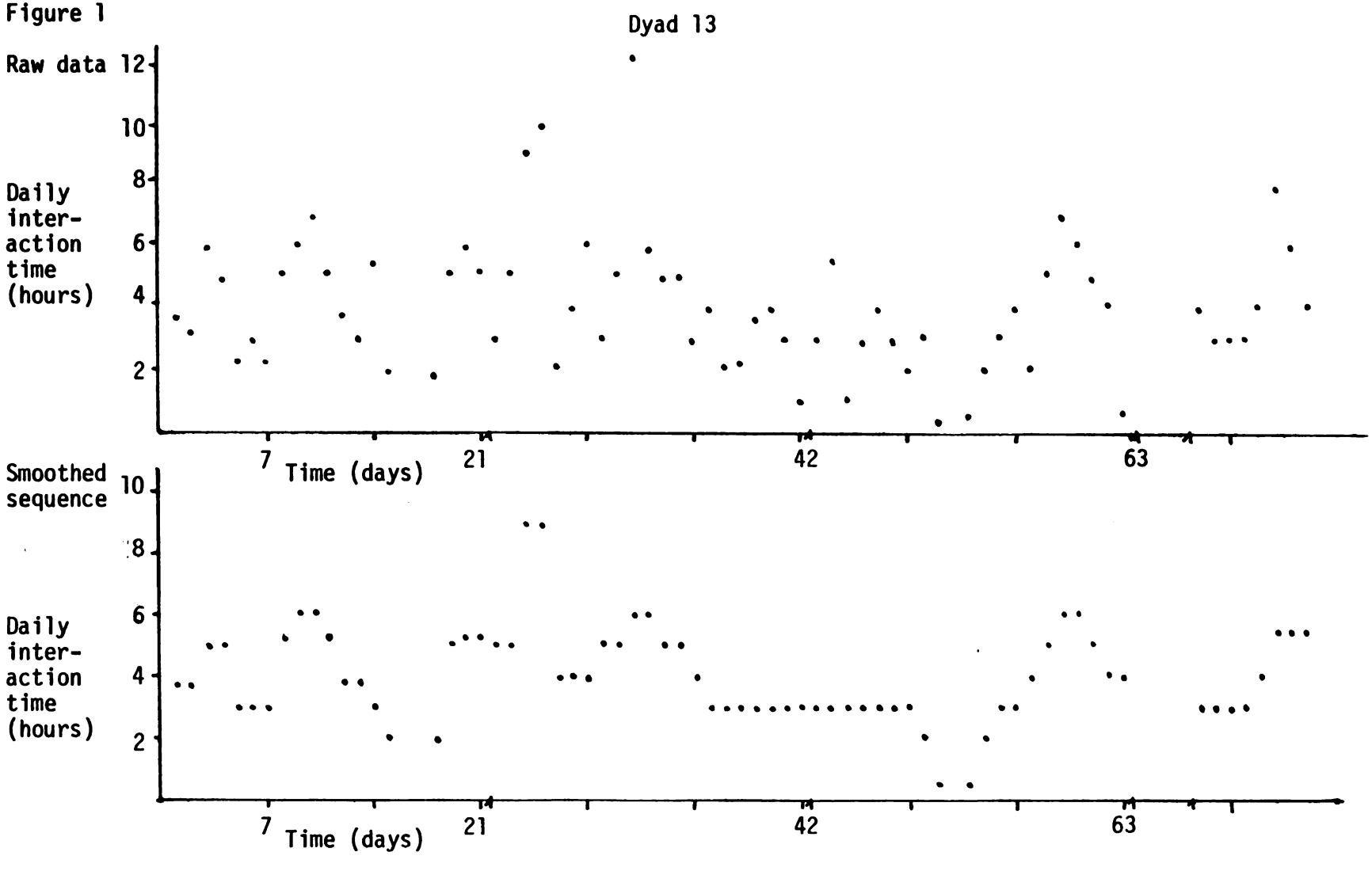

Dyad 12
Raw data
Daily inter-action time (hours)
6
4
2
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
4
2
7
21
42
63
Time (days)

Figure 1


Dyad 13
Raw data
Daily inter-action time (hours)
12
10
8
6
4
2
7
21
42
63
Time (days)
Smoothed sequence
Daily inter-action time (hours)
10
8
6
4
2
7
21
42
63
Time (days)

dyad to dyad because of variation in the range of time spent interacting. Six of the relationships show a generally descending pattern of time interacting, two of which are concave. Four relationships show a generally U-shaped pattern over time, while three are generally fluctuating or multimodal. Sample means and standard deviations for time spent interacting and time spent interacting as a fraction of time together for each of the four periods and over the entire quarter are shown in Table 6.

Table 6. Means and standard deviations of TI[a] and TI/TT[b] during four periods of fall quarter, 1980 at Michigan State University. (n = 11 dyads)

Period	n	M	SD
		TI*	
1[c]	188	2.66	2.46
2[d]	198	2.10	2.77
3[e]	187	2.19	3.16
4[f]	71	2.62	3.07
Entire quarter	644	2.35	2.84
		TI/TT[g]	
1	188	.530	.278
2	198	.483	.285
3	184	.479	.288
4	70	.567	.215
Entire quarter	640	.505	.278

[a]TI is time dyads spent interacting each day (hours).
[b]TT is time dyads spent together each day (hours).
[c]Weeks 1-3.
[d]Weeks 4-6.
[e]Weeks 7-9.
[f]Post Thanksgiving.
[g]Friedman $\chi_r^2 = 2.33$, $df = 3$, $p > .1$).
*Friedman $\chi_r^2 = 50.890$, $df = 3$, $p < .001$.

The Friedman two-way analysis of variance by ranks was used to test for differences between time periods. This test is a nonparametric means of testing the null hypothesis of no differences under k different treatments, conditions or times, and is analogous to a one-way repeated-measures analysis of variance. Scores are ranked across conditions--in this application across the four time periods--and within subjects or matched groups--in this application the same relationships measured in each period. A sum of ranks is computed for each condition. These are used to calculate the test statistic, χ_r^2, which is distributed as chi-squared. The formula for χ_r^2 is given by Siegal (1956). The Friedman χ_r^2 for differences in Time Interacting among the four time periods was significant ($\chi_r^2 = 50.89$, $df = 3$, $p<.001$) but the χ_r^2 for Time Interacting as a fraction of Time Together was not ($\chi_r^2 = 2.33$, $df = 3$, $p>.1$). The means show that Time Interacting decreased in periods 1 through 3 and increased from Period 3 to Period 4.

Frequency of Serious and Relational Discussions. Raw data and smoothed-sequence graphs of frequencies of serious and relational discussions per week are shown in Figure 2. For serious discussions five dyads show a generally descending pattern, four ascending, and four nearly level. For relational discussions, eight of the relationships show a generally descending pattern, two of which are concave. Four relationships show a nearly level pattern of frequency of relational discussion, one an ascending pattern and one an inverted U pattern. Grouped graphs for the main patterns are shown in Figure 3.

Means and standard deviations of weekly mean frequency of serious and relational discussions are reported in Table 7. The Friedman

Figure 2. Weekly frequency of serious discussions and relational discussions between roommates by weeks of fall quarter, 1980 at Michigan State University for each of 13 dyads.

Figure 2

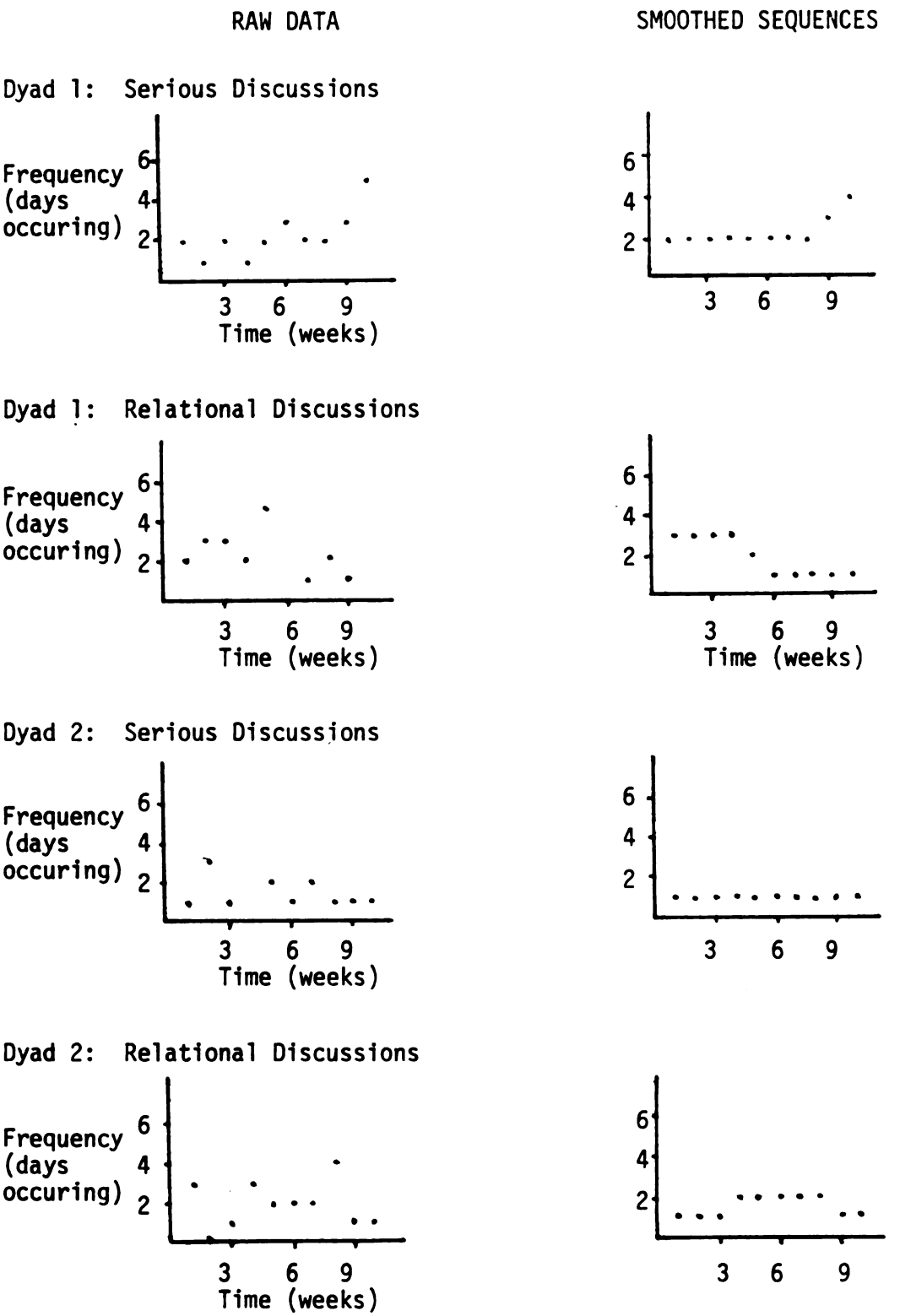

RAW DATA
SMOOTHED SEQUENCES
Dyad 1: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 1: Relational Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 2: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 2: Relational Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)

Figure 2

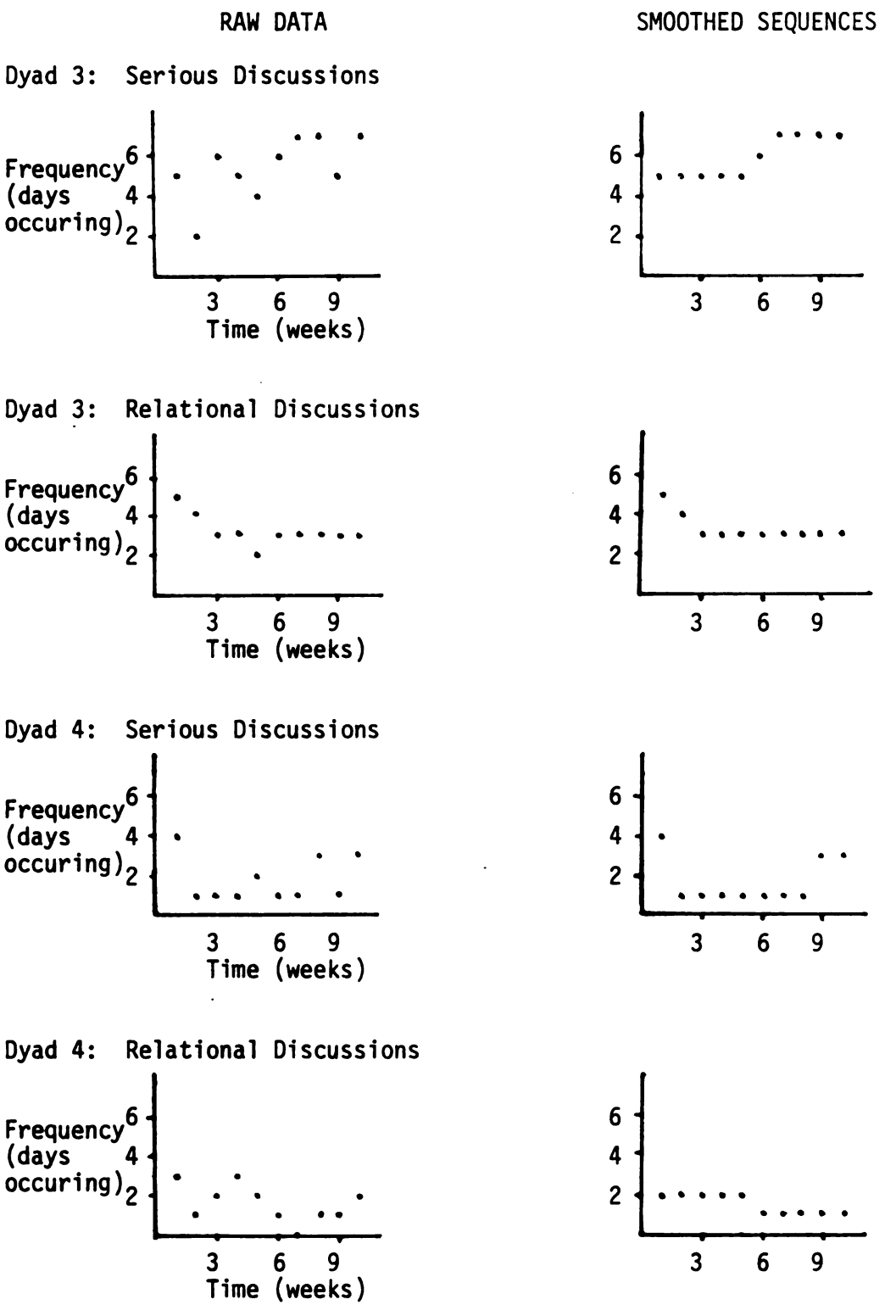
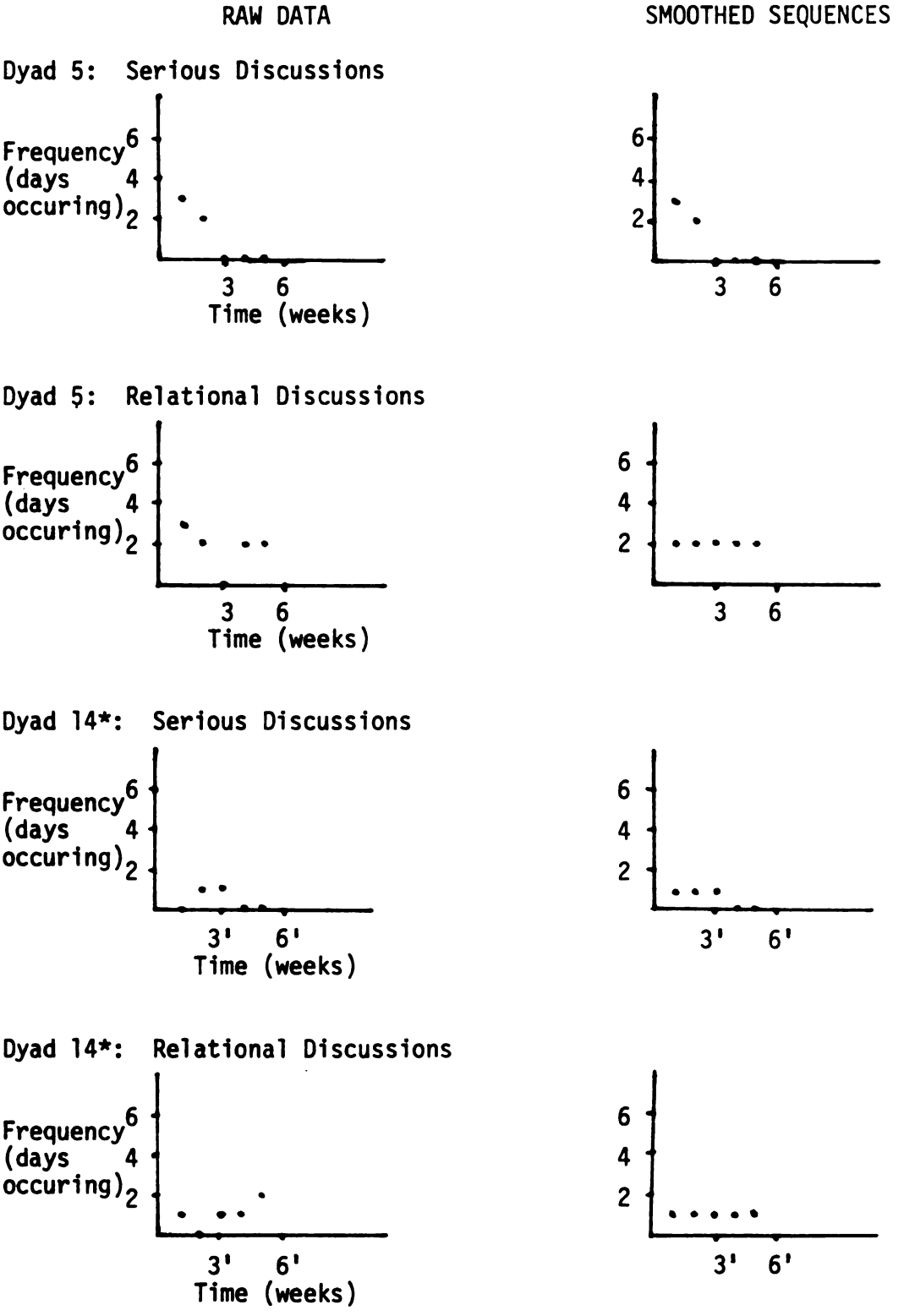

RAW DATA
SMOOTHED SEQUENCES
Dyad 3: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 3: Relational Discussions
Dyad 4: Serious Discussions
Dyad 4: Relational Discussions

Figure 2



*Dyad 14 was participant-observer 5 and his second roommate.

Figure 2

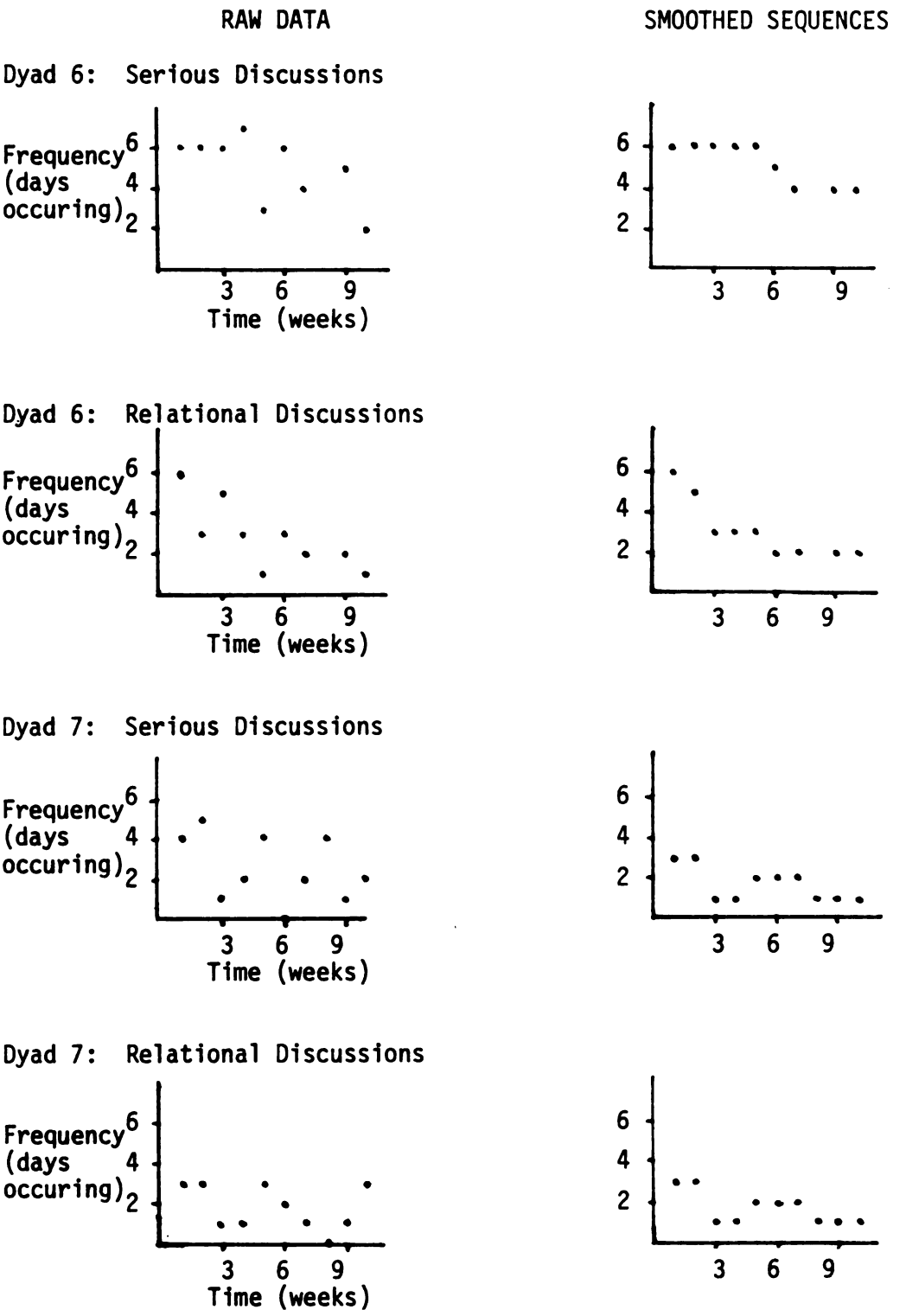

RAW DATA
SMOOTHED SEQUENCES
Dyad 6: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 6: Relational Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 7: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 7: Relational Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)

Figure 2

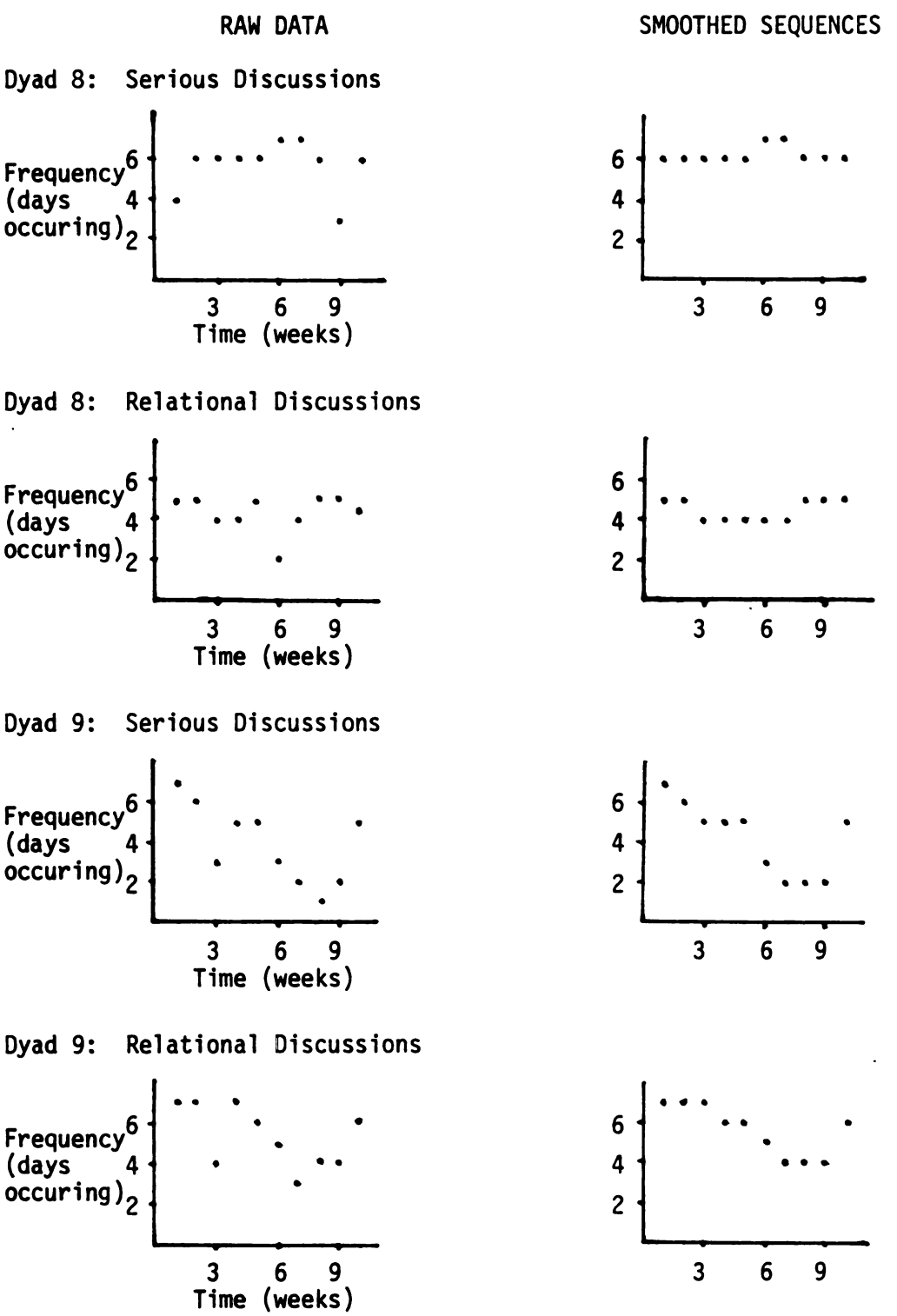

RAW DATA
SMOOTHED SEQUENCES
Dyad 8: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 8: Relational Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 9: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 9: Relational Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)

Figure 2

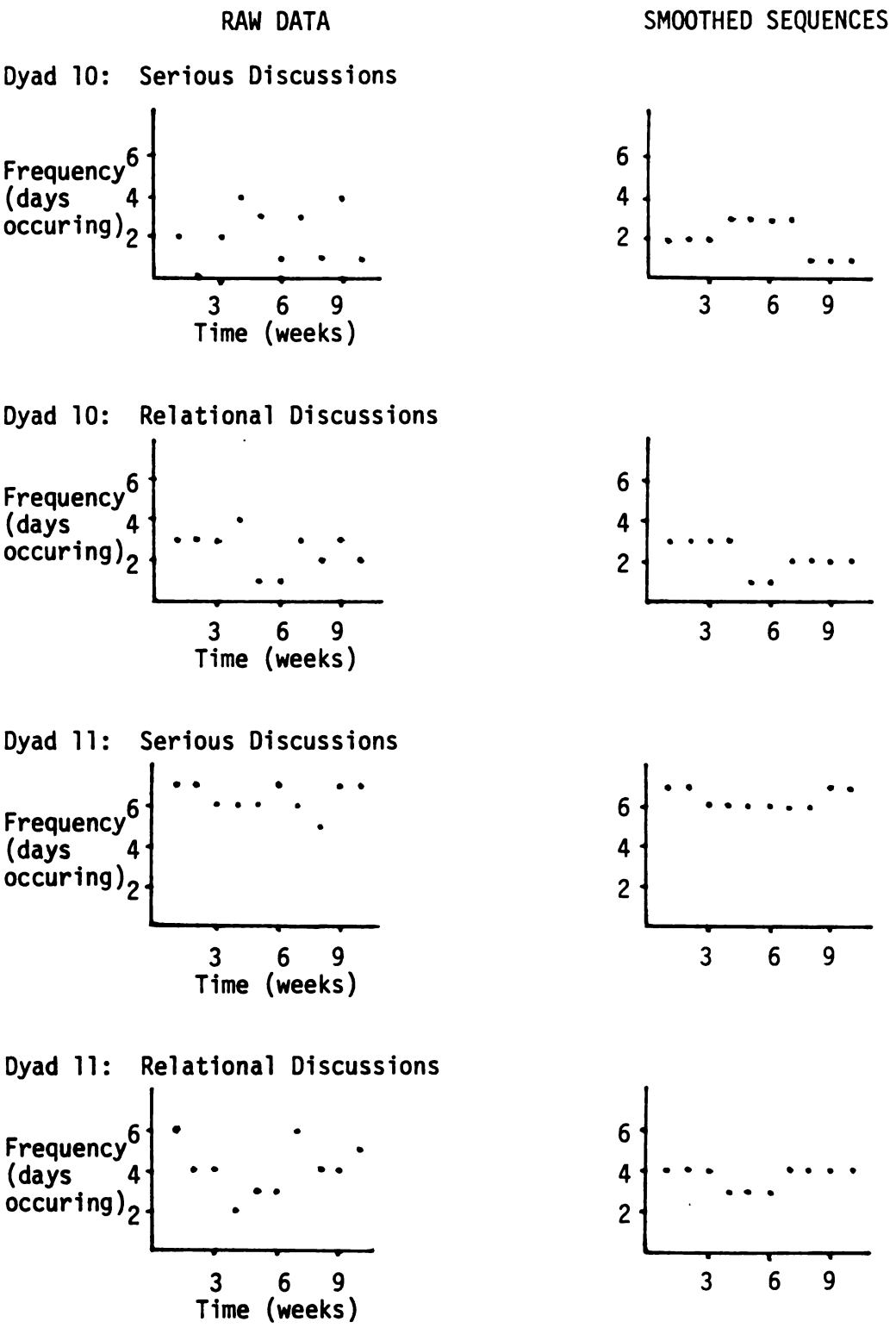

RAW DATA
SMOOTHED SEQUENCES
Dyad 10: Serious Discussions
Frequency (days occuring)
Time (weeks)
Dyad 10: Relational Discussions
Frequency (days occuring)
Time (weeks)
Dyad 11: Serious Discussions
Frequency (days occuring)
Time (weeks)
Dyad 11: Relational Discussions
Frequency (days occuring)
Time (weeks)

Figure 2

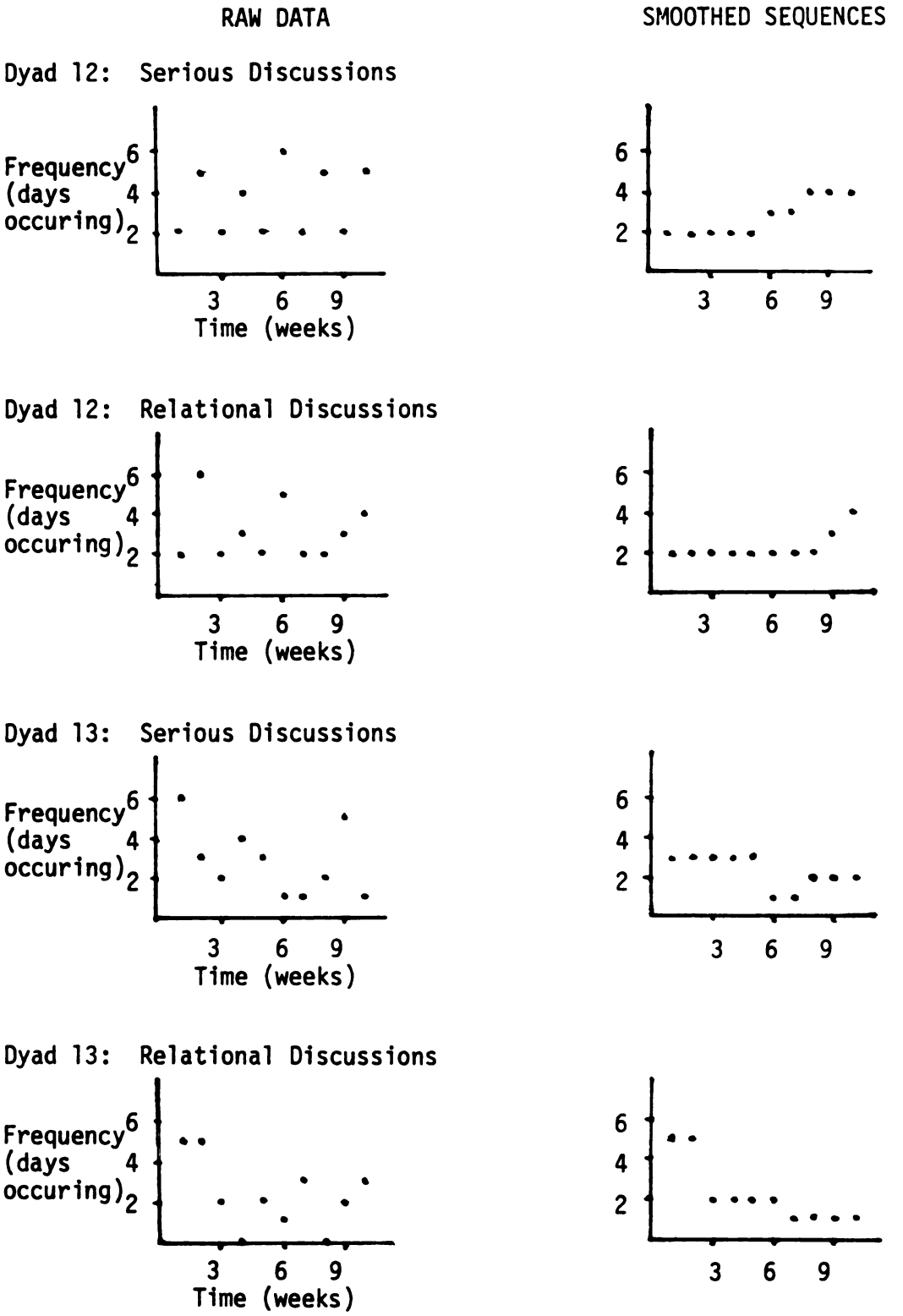

RAW DATA
SMOOTHED SEQUENCES
Dyad 12: Serious Discussions
Frequency (days occuring)
6
4
2
3 6 9
Time (weeks)
Dyad 12: Relational Discussions
Dyad 13: Serious Discussions
Dyad 13: Relational Discussions

Figure 3. Group graphs of weekly frequency of serious discussions and relational discussions between roommates by weeks of fall quarter, 1980 at Michigan State University.

Figure 3

Serious Discussions

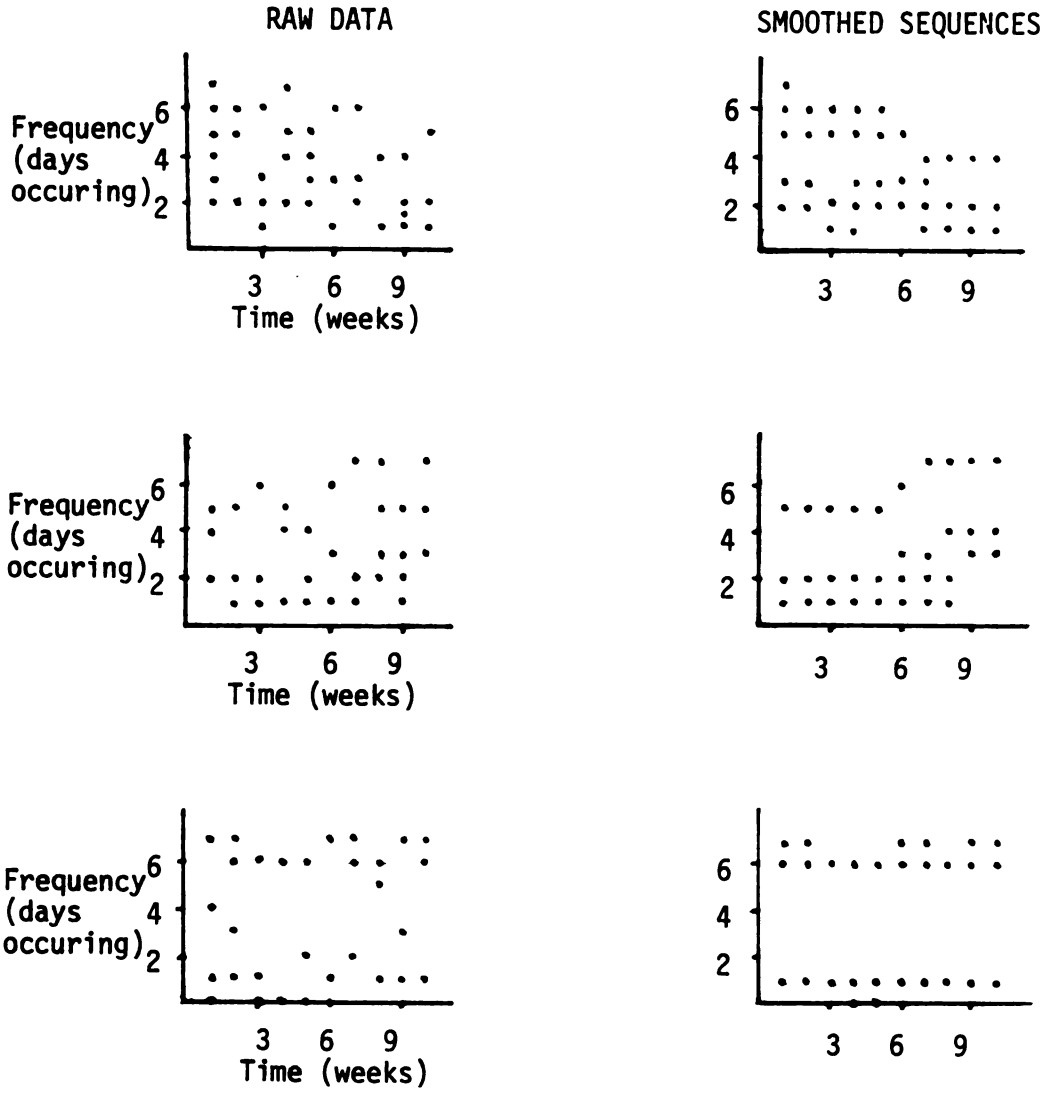


Figure 3

Relational Discussions

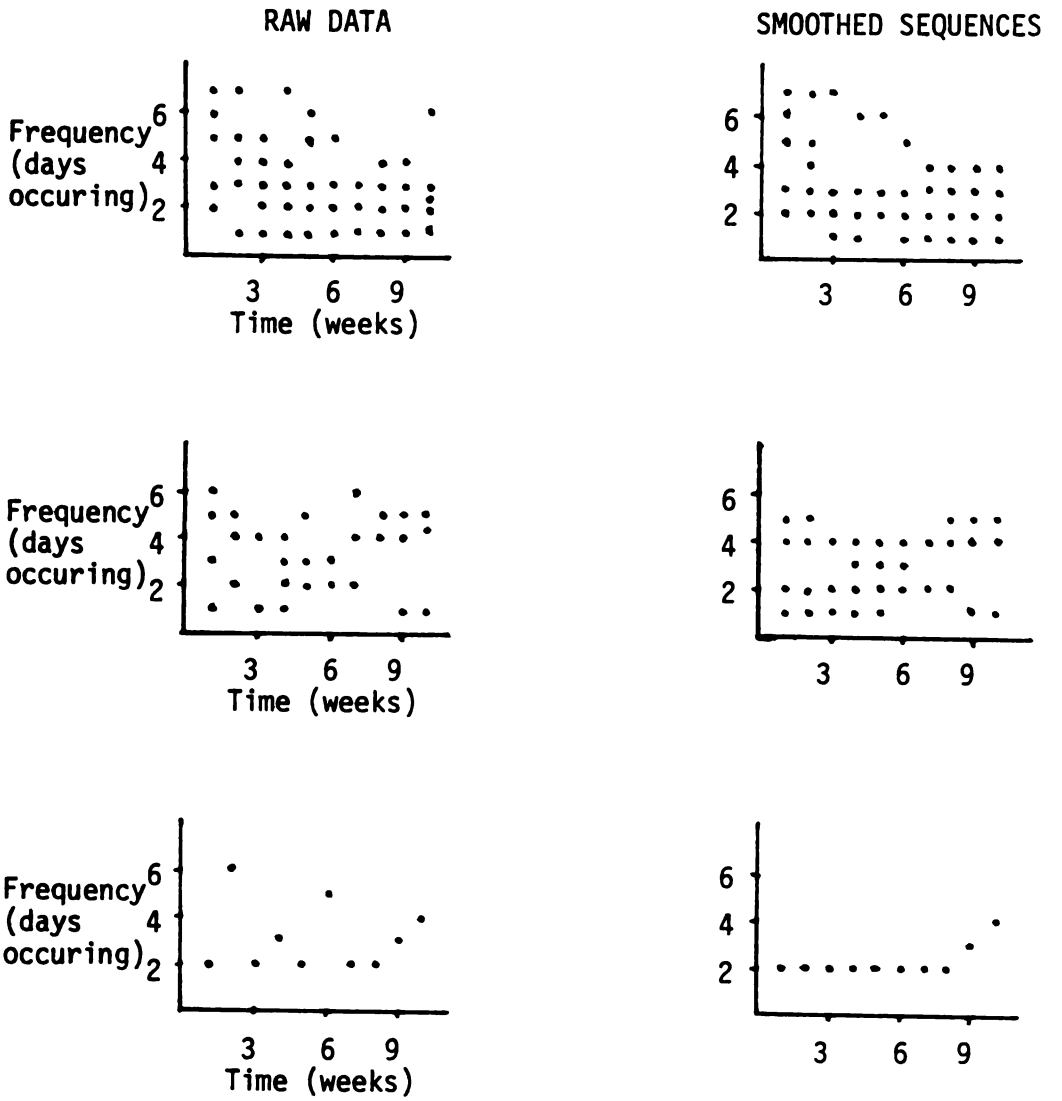


Table 7. Means and standard deviations of weekly frequencies of serious and relational discussions by roommates (n = 12 dyads) at Michigan State University during four periods of fall quarter, 1980.

Period	M	SD
Serious discussions**		
1[a]	3.64	1.92
2[b]	3.61	1.85
3[c]	3.32	1.76
4[d]	3.75	2.34
Entire quarter	3 58	1.92
Relational discussions*		
1	3.56	1.35
2	2.67	1.25
3	2.44	1.37
4	2.75	1.76
Entire quarter	2.85	1.46

[a]Weeks 1-3

[b]Weeks 4-6

[c]Weeks 7-9

[d]Post-Thanksgiving

*Friedman χ^2_r = 6.575, df = 3, p<.1.

**Friedman χ^2_r = 9.788, df = 3, p<.05.

analysis of variance by ranks was used to test for differences in weekly mean frequencies of serious (χ_r^2 = 9.788, df = 3, $p<.05$) and relational (χ_r^2 = 6.575, df = 3, $p<.1$) discussions. Both types of discussions decreased in frequency from Period 1 through Period 3 and increased in frequency in Period 4.

Number and Kind of Topics Discussed. Graphs of number of topics discussed over time are shown in Figure 4. Four relationships showed a generally U-shaped pattern, four a fluctuating or multimodal pattern, three a basically level pattern and one a generally descending pattern. Most of the fluctuating, multimodal and U-shaped patterns had low points in weeks 6-8. Figure 5 shows group graphs for U-shaped, fluctuating and multimodal, and level patterns of relationships.

Means and standard deviations for number of topics over the four time periods are given in Table 8. A Friedman analysis of variance by ranks showed that the pattern of decreasing topic frequencies in periods 1 through 3 with a slight increase in Period 4, had significant differences among time periods (χ_r^2 = 8.00, df = 3, $p<.05$).

Table 9 shows aggregate frequencies for the comparison topic categories in each of the four time periods. They were tested against the null hypothesis of a steady rate of occurrence. The expected values were calculated by dividing the total frequency for the category by the number of days in the quarter and multiplying by the number of days in each period. No significant differences over time were shown for the external and shared topics, which were also low in frequency overall. The chi-squared test for the personal category was significant with the frequencies decreasing in Period 1 through Period 3 and rising relatively in Period 4. The relational category frequencies over time also had

Figure 4. Daily number of topics discussed by roommates by days of fall quarter, 1980 at Michigan State University for each of 13 dyads.

Figure 4

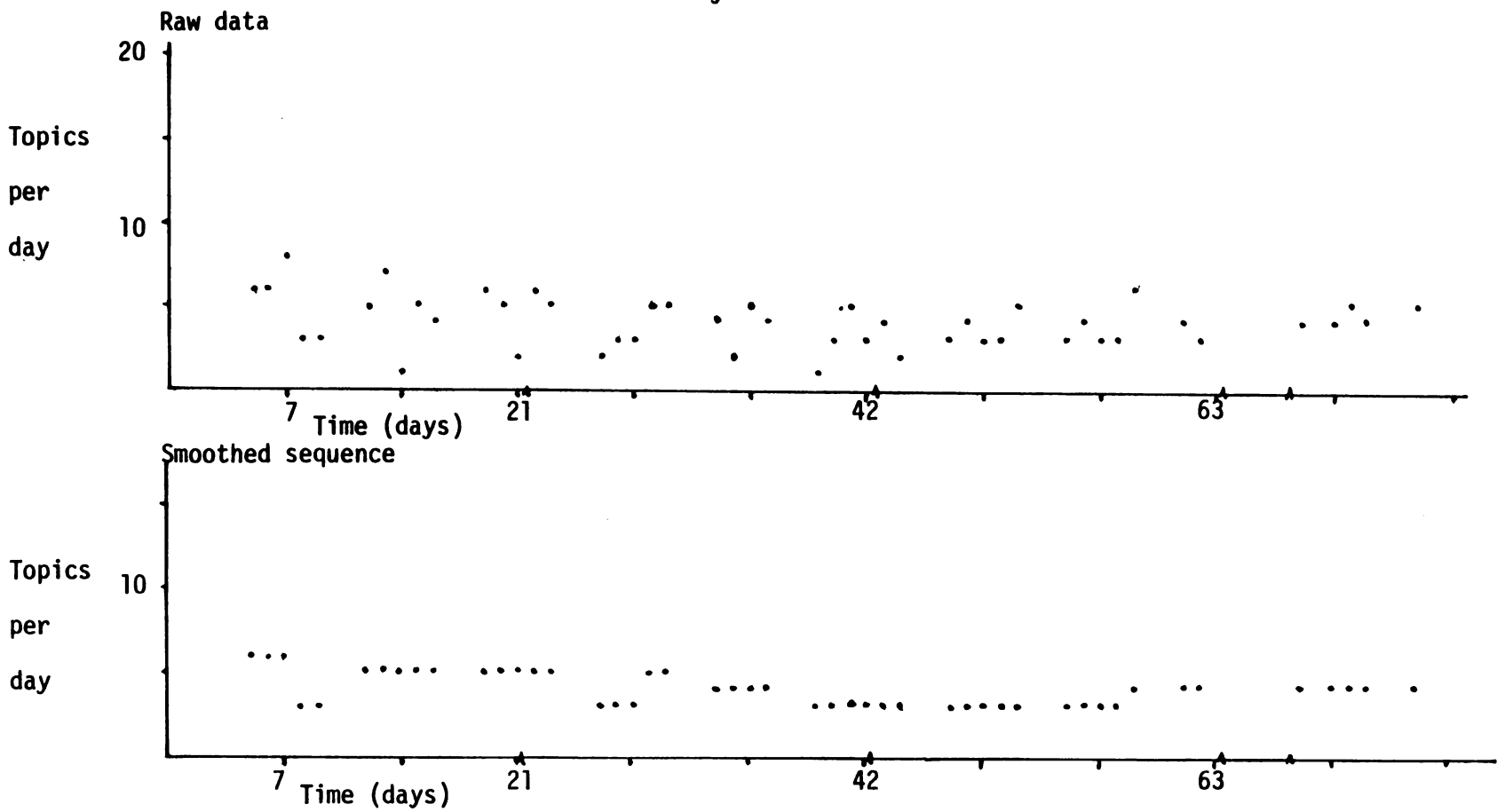

Dyad 1
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

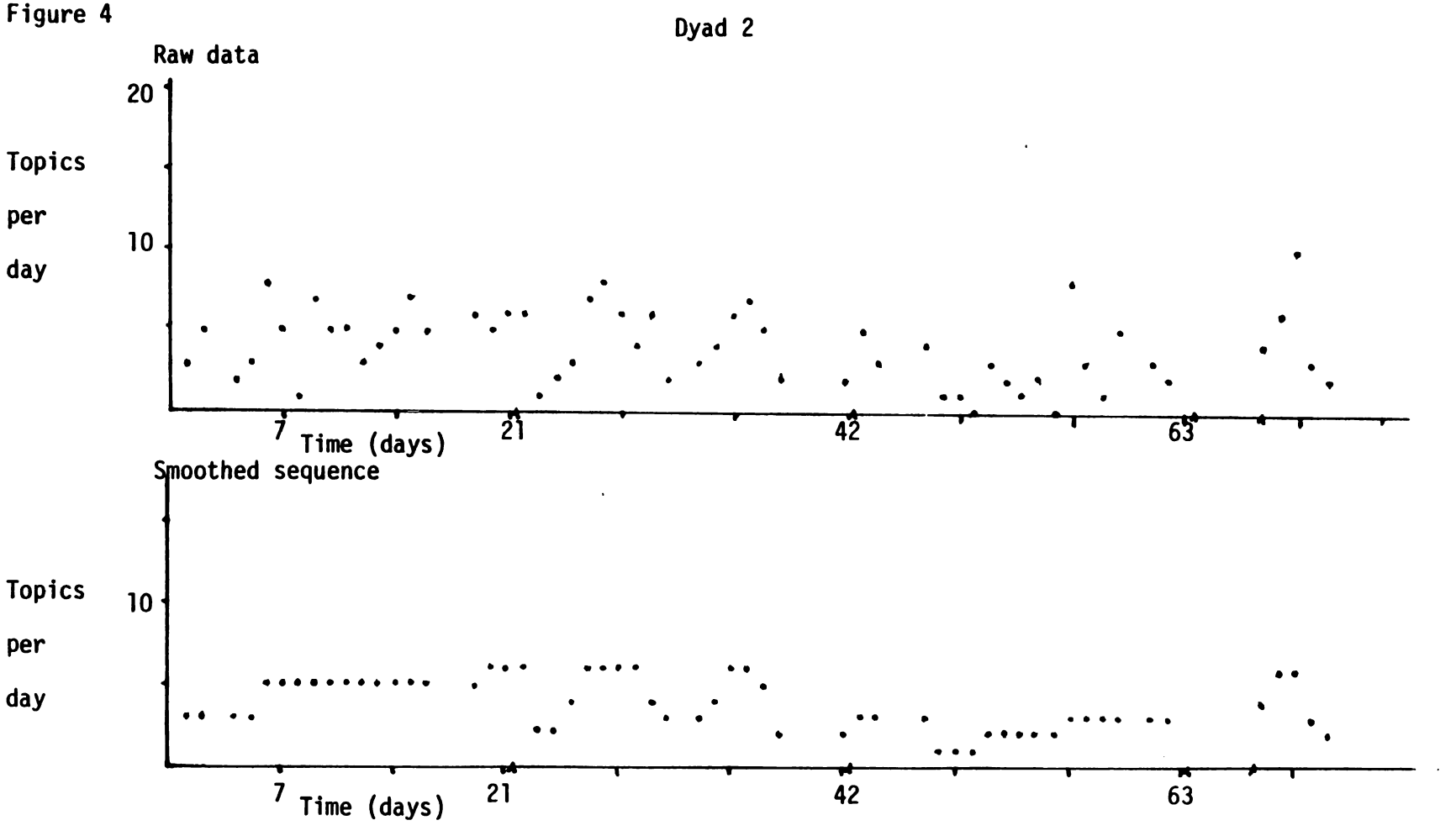

Dyad 2
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

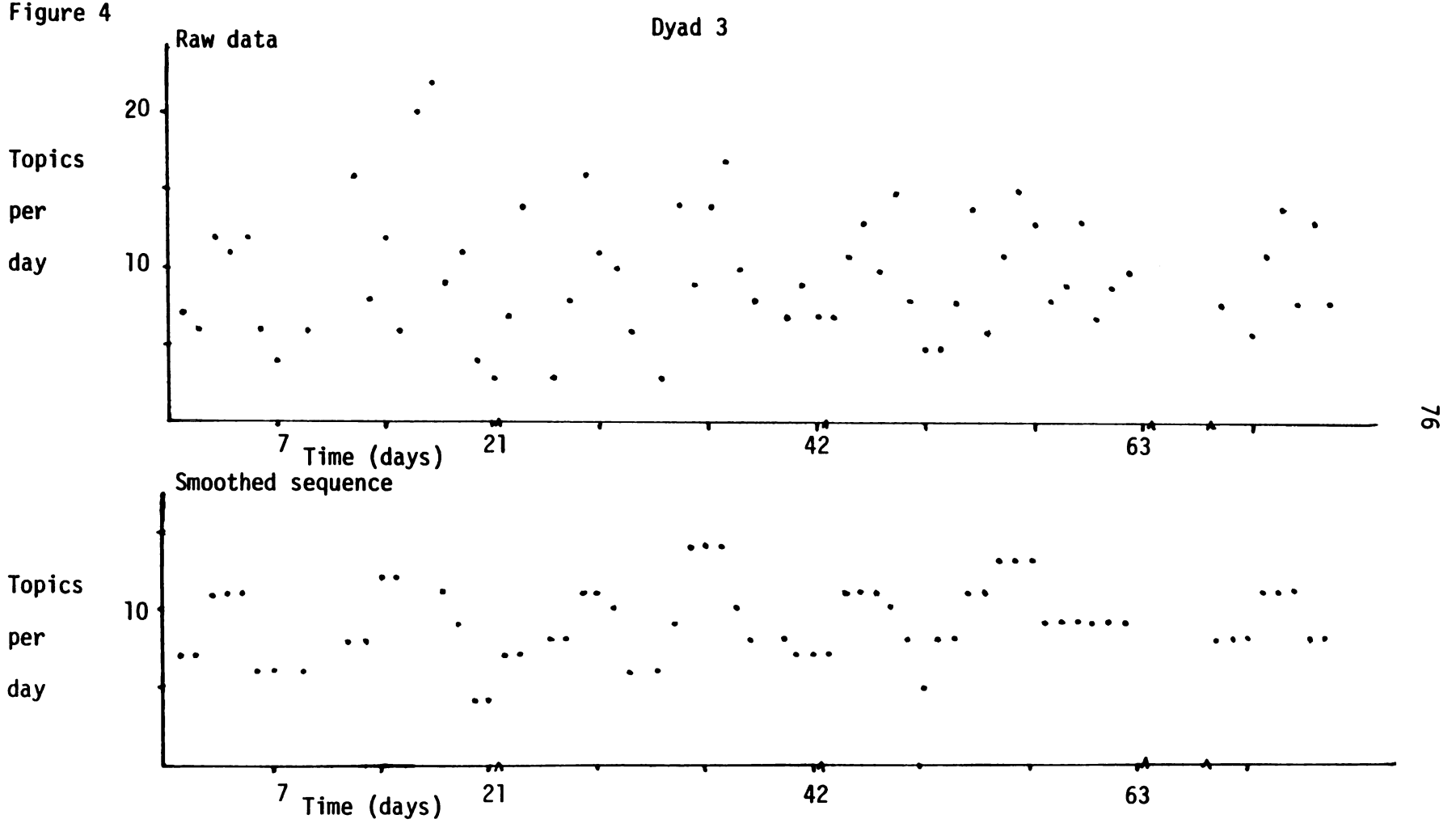

Dyad 3
Raw data
20
Topics
per
day
10
7
Time (days)
21
42
63
Smoothed sequence
Topics
per
day
10
7
Time (days)
21
42
63

Figure 4

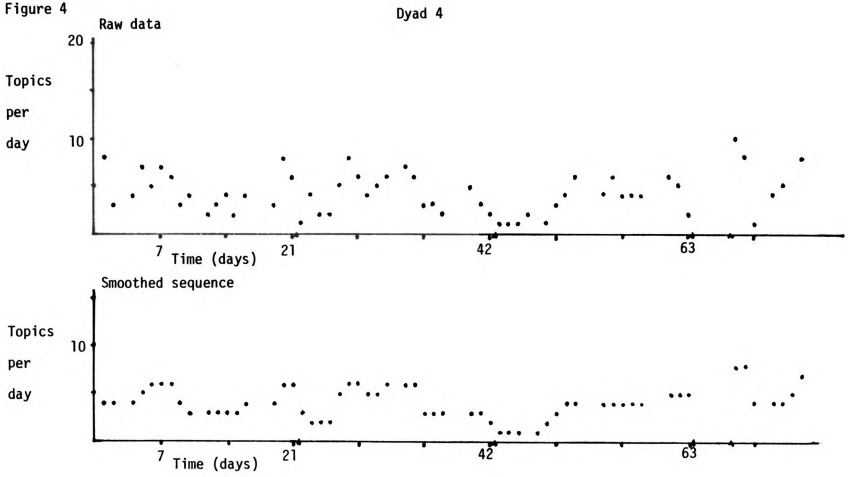

Dyad 4
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

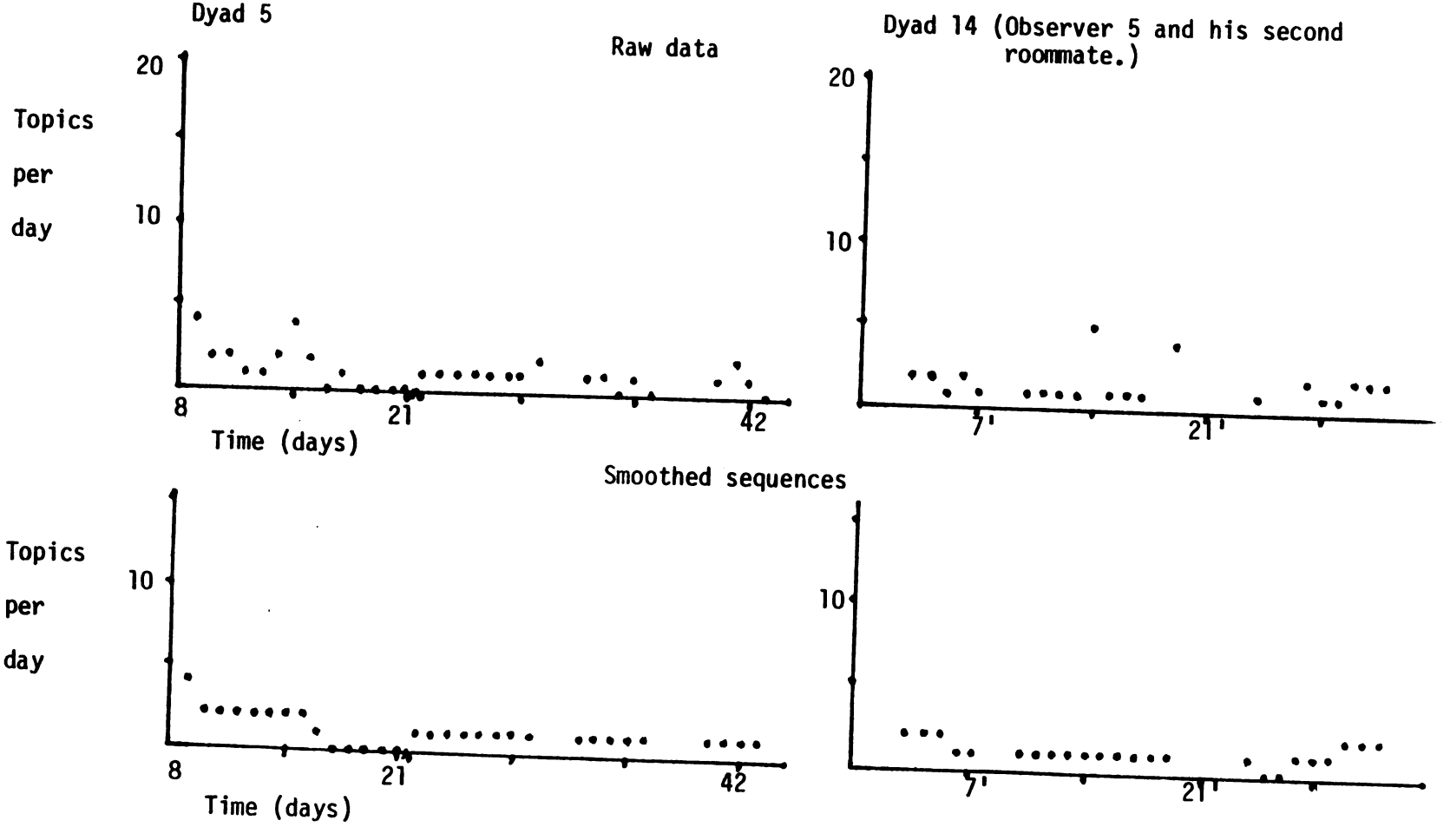

Dyad 5
Raw data
Dyad 14 (Observer 5 and his second roommate.)
Topics per day
20
10
8
21
42
Time (days)
7
21
Smoothed sequences
Topics per day
10
8
21
42
Time (days)
10
7
21

Figure 4

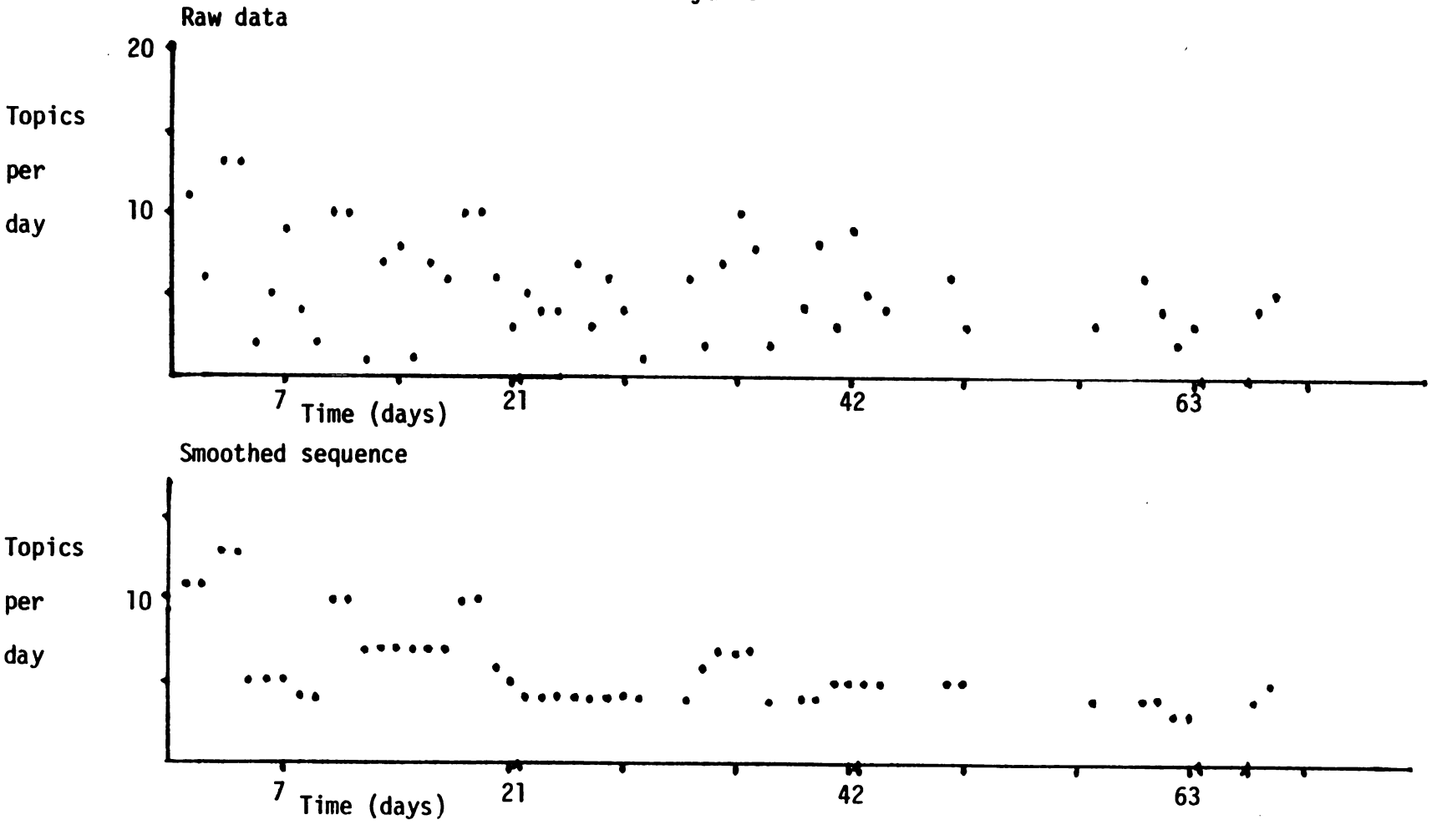

Dyad 6
Raw data
20
Topics
per
day
10
7
Time (days)
21
42
63
Smoothed sequence
Topics
per
day
10
7
Time (days)
21
42
63

Figure 4

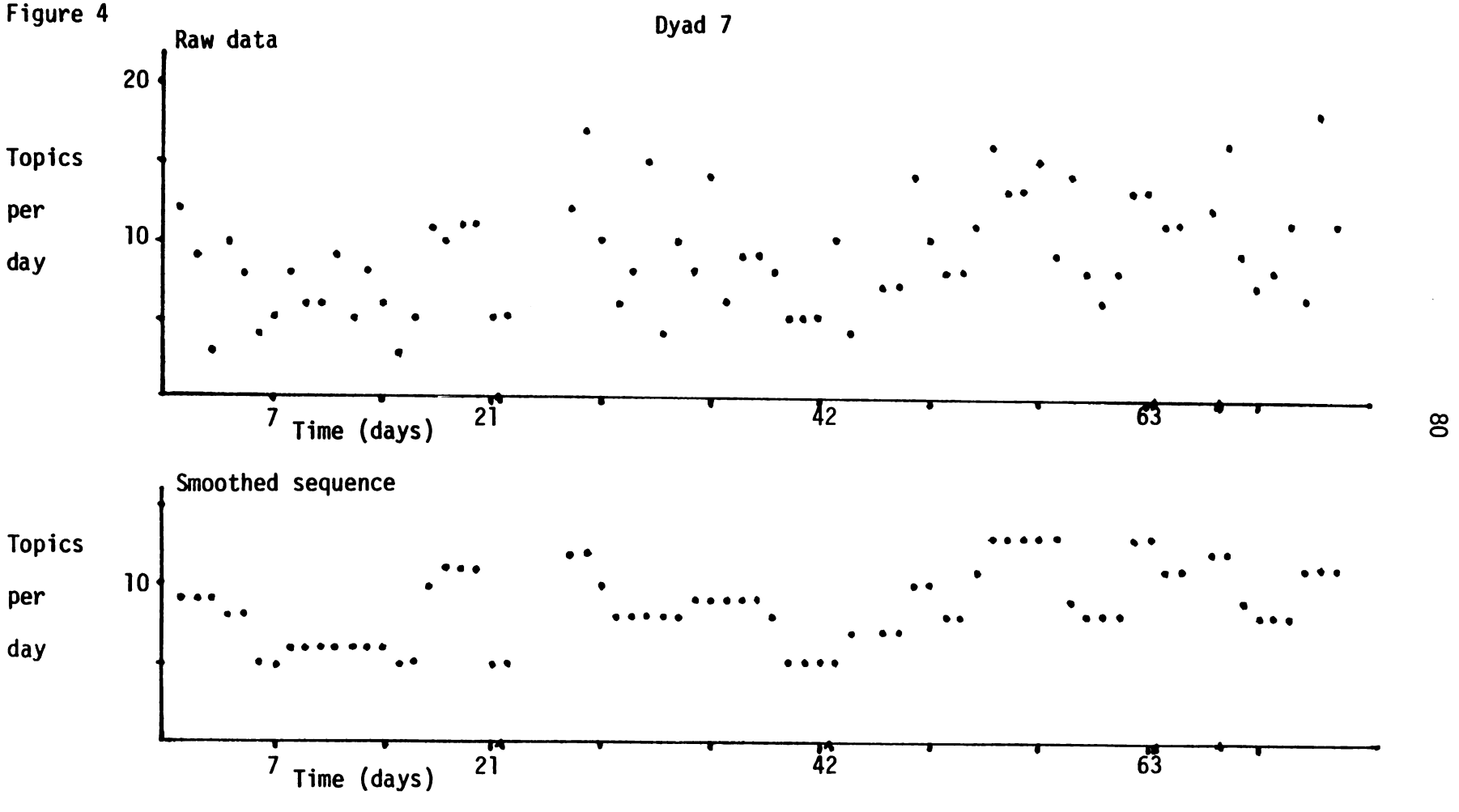

Dyad 7
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

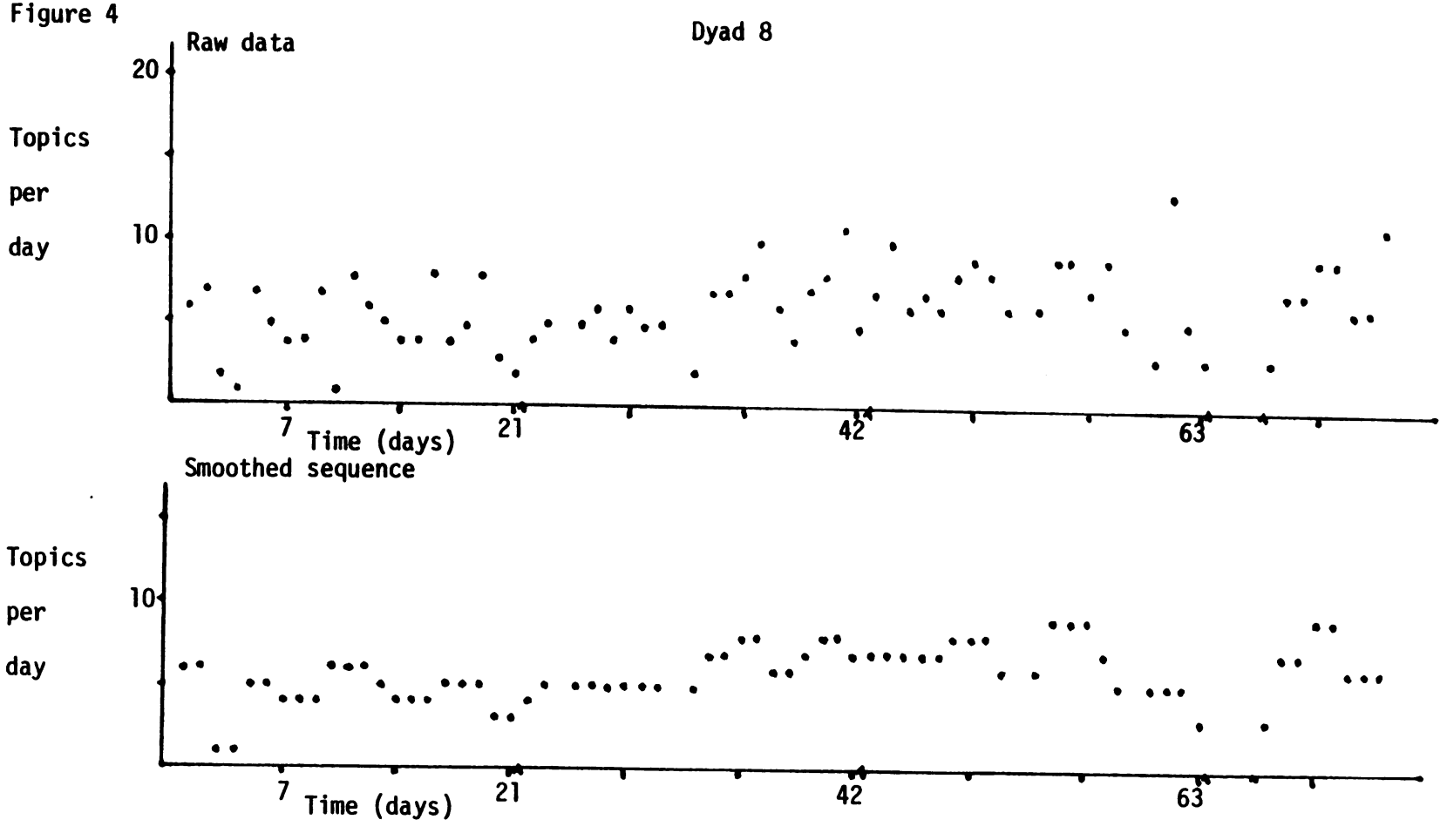

Dyad 8
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

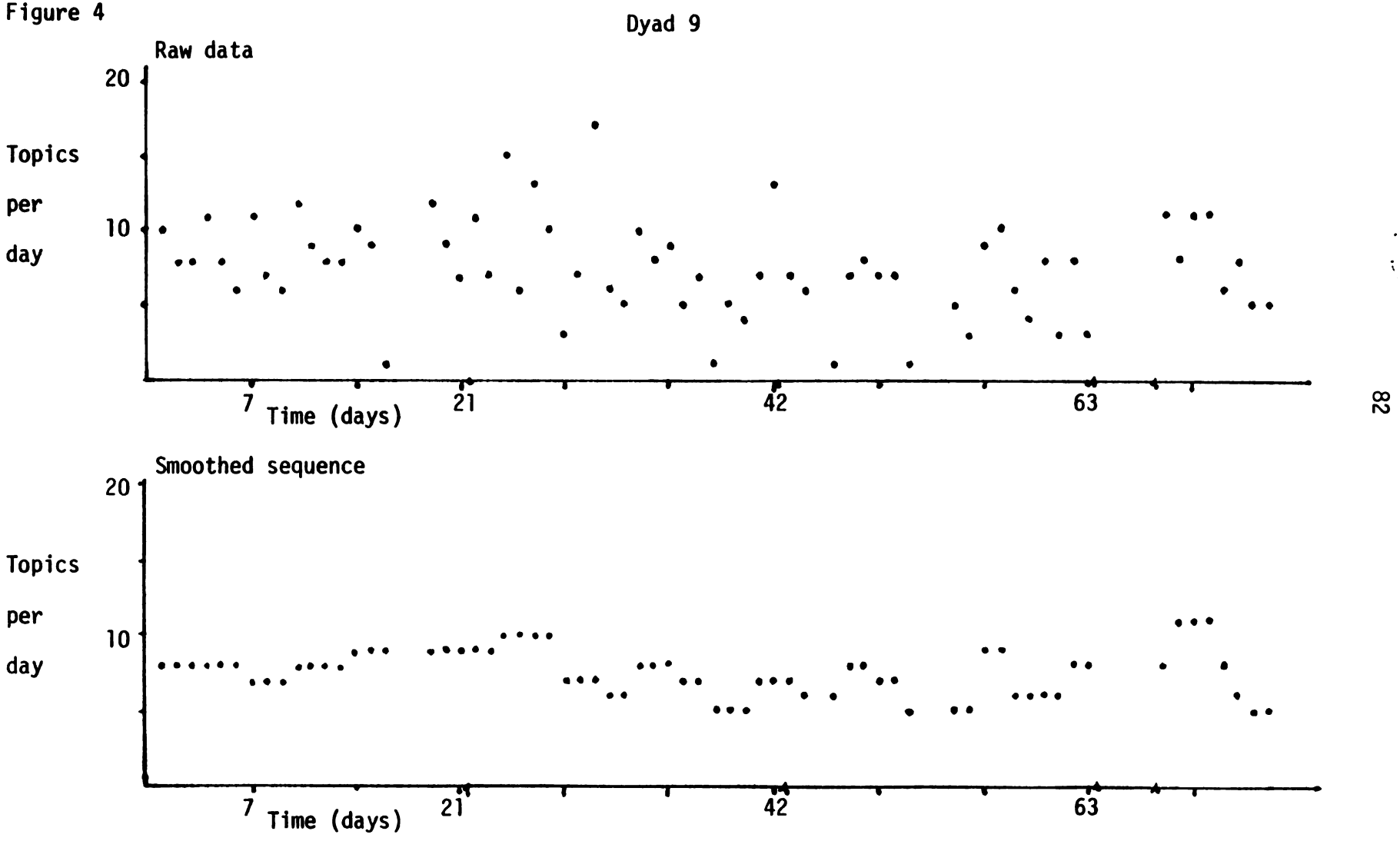

Dyad 9
Raw data
20
Topics
per
day
10
7
Time (days)
21
42
63
Smoothed sequence
20
Topics
per
day
10
7
Time (days)
21
42
63

Figure 4

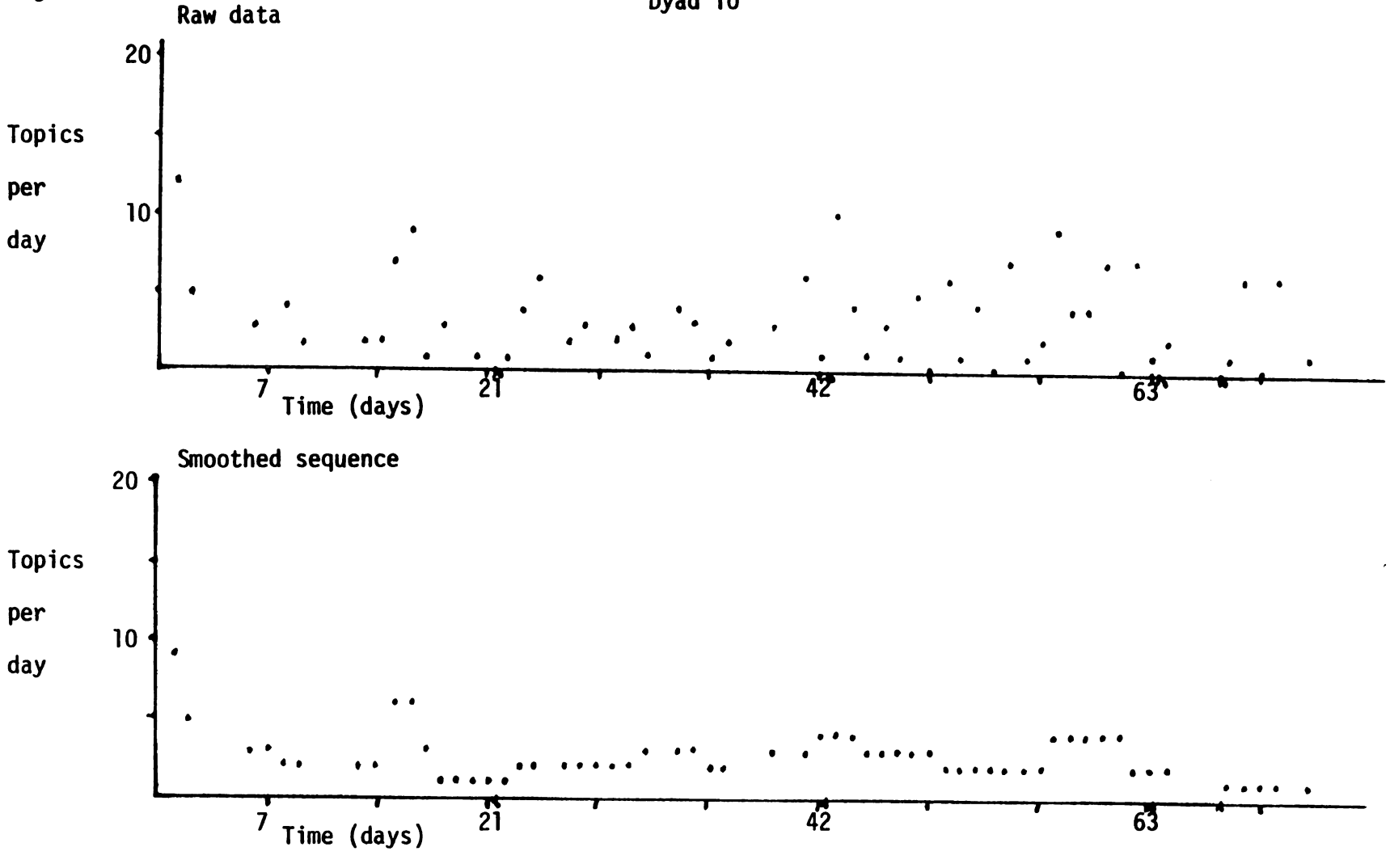

Dyad 10
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
20
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

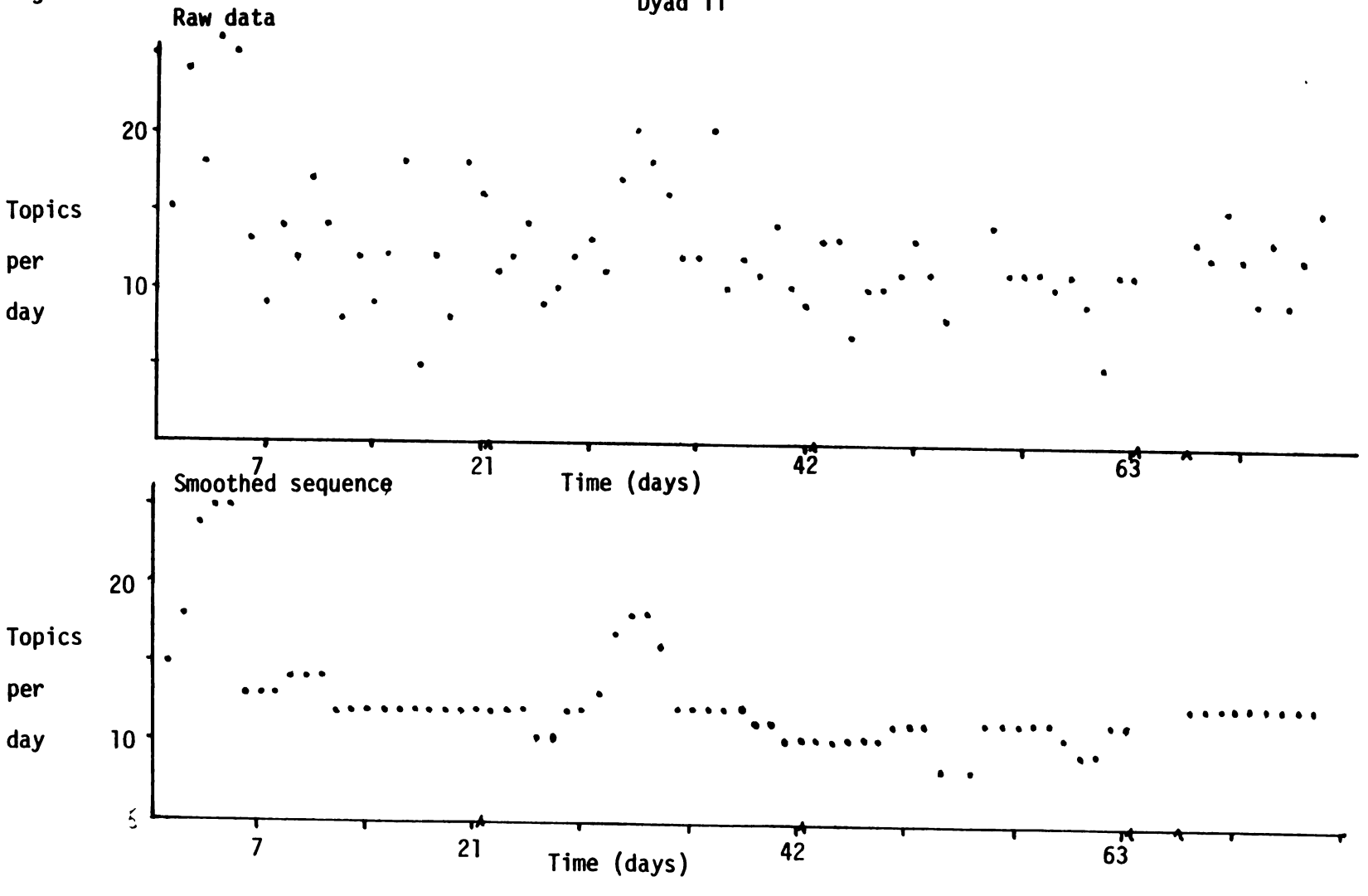

Dyad 11
Raw data
Topics per day
20
10
7
21
42
63
Time (days)
Smoothed sequence
Topics per day
20
10
7
21
42
63
Time (days)

Figure 4

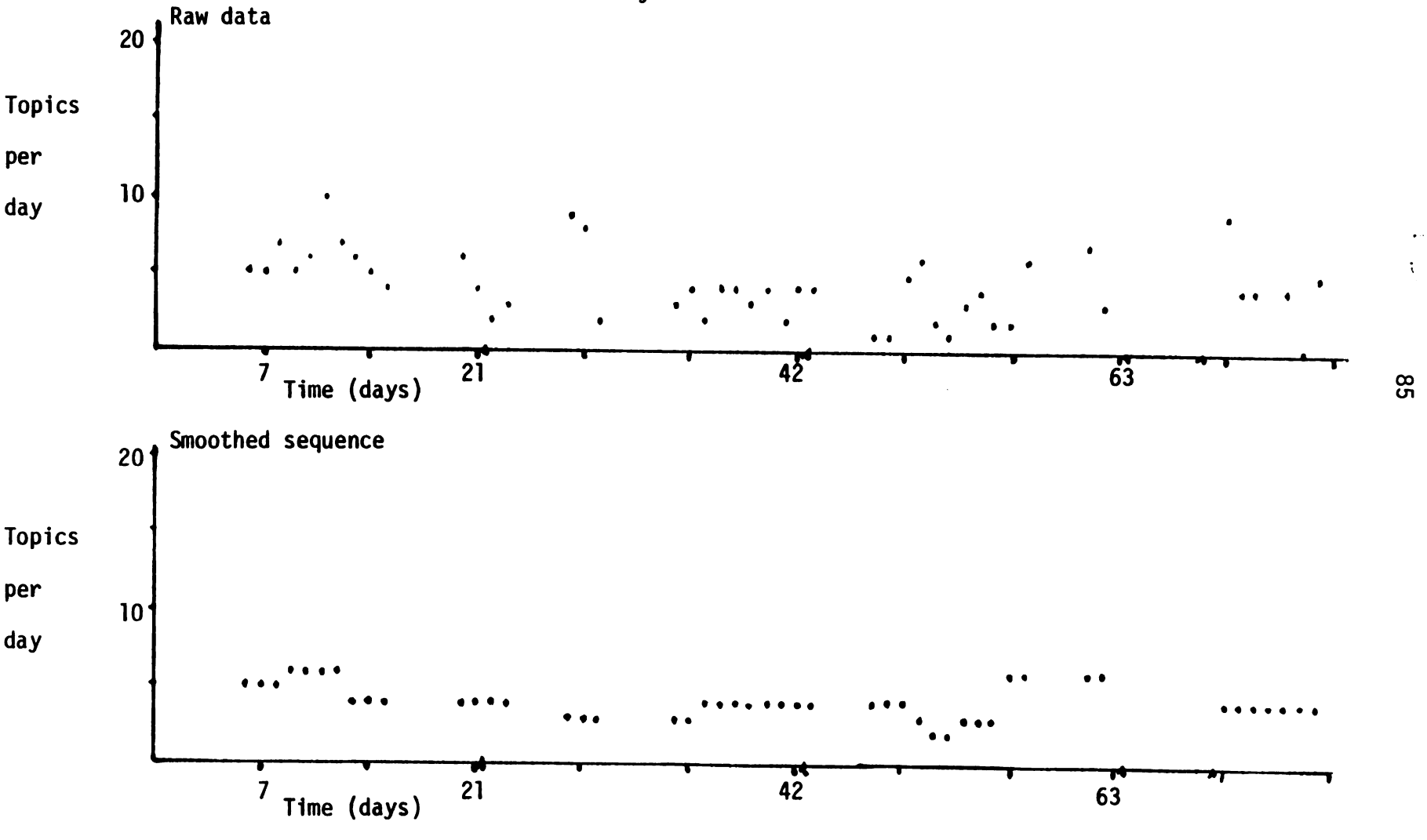

Dyad 12
Raw data
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
20
Topics
per
day
10
7
21
42
63
Time (days)

Figure 4

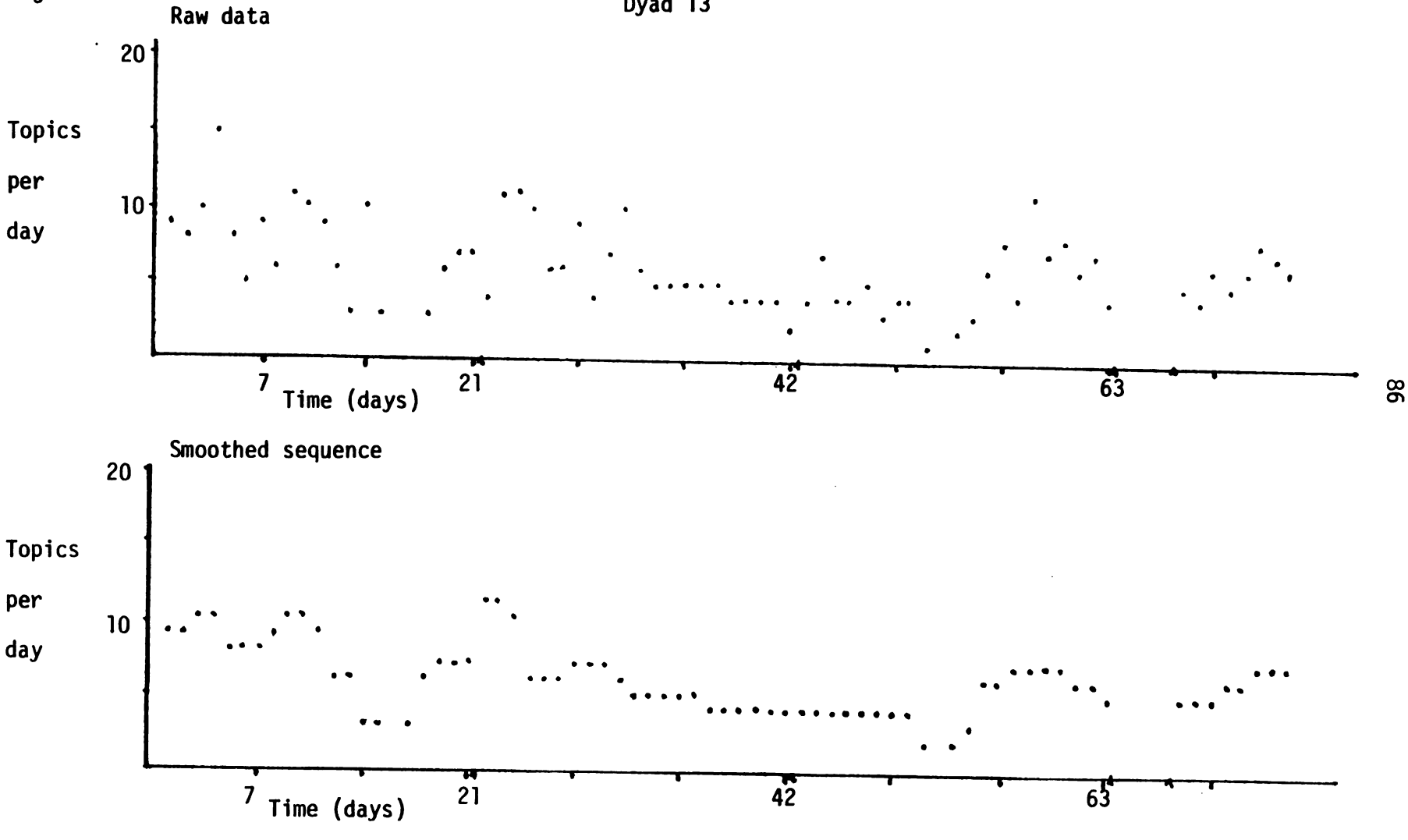

Raw data
Dyad 13
20
Topics
per
day
10
7
21
42
63
Time (days)
Smoothed sequence
20
Topics
per
day
10
7
21
42
63
Time (days)

Figure 5. Group graphs of daily number of topics discussed by roommates by days of fall quarter, 1980 at Michigan State University.

Figure 5

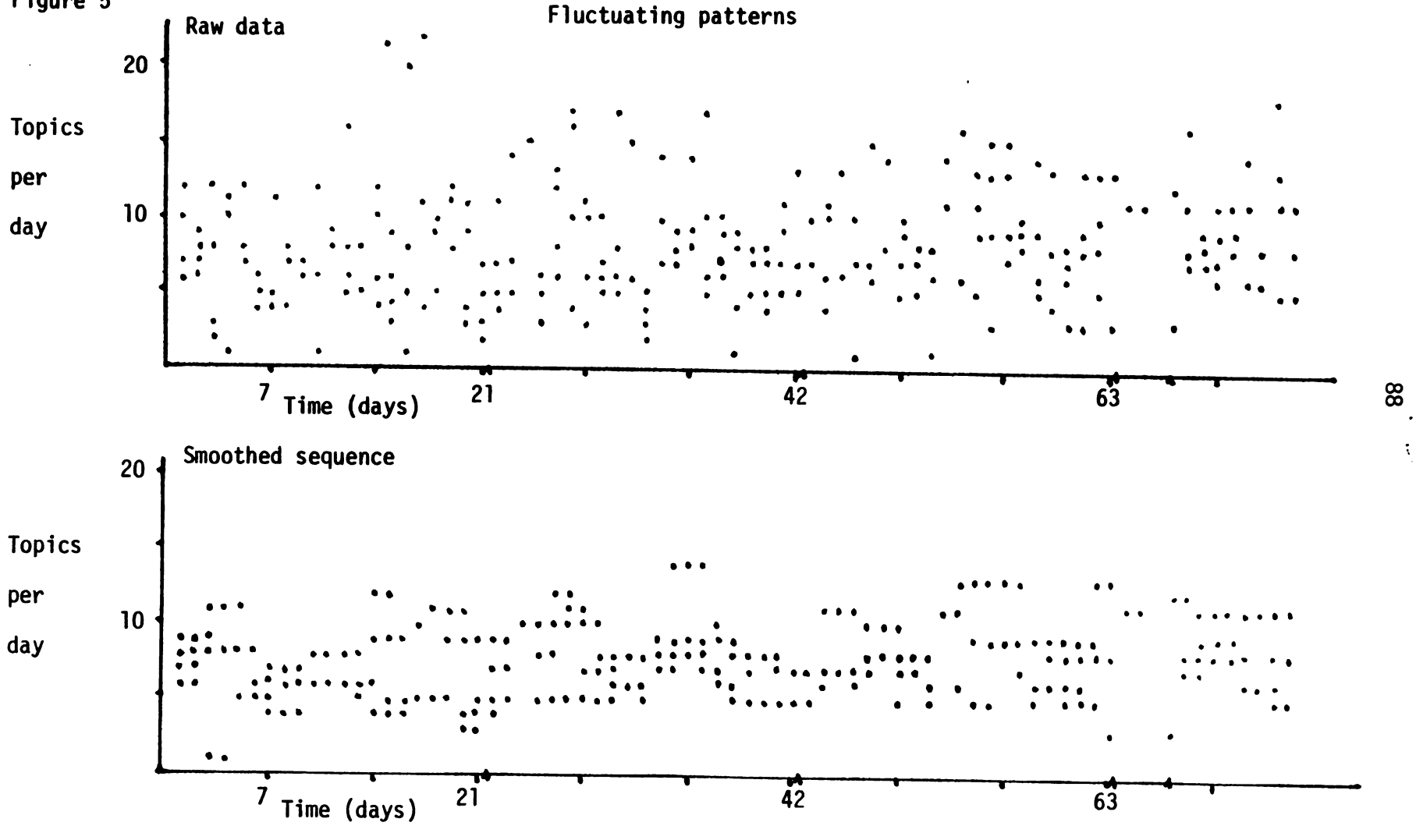

Fluctuating patterns
Raw data
20
Topics
per
day
10
7
Time (days)
21
42
63
Smoothed sequence
20
Topics
per
day
10
7
Time (days)
21
42
63

Figure 5

U-shaped and bimodal patterns

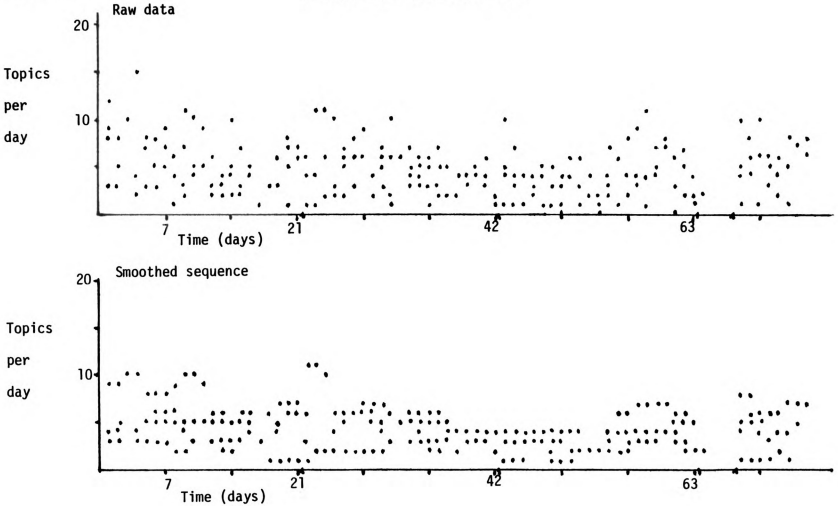


Figure 5

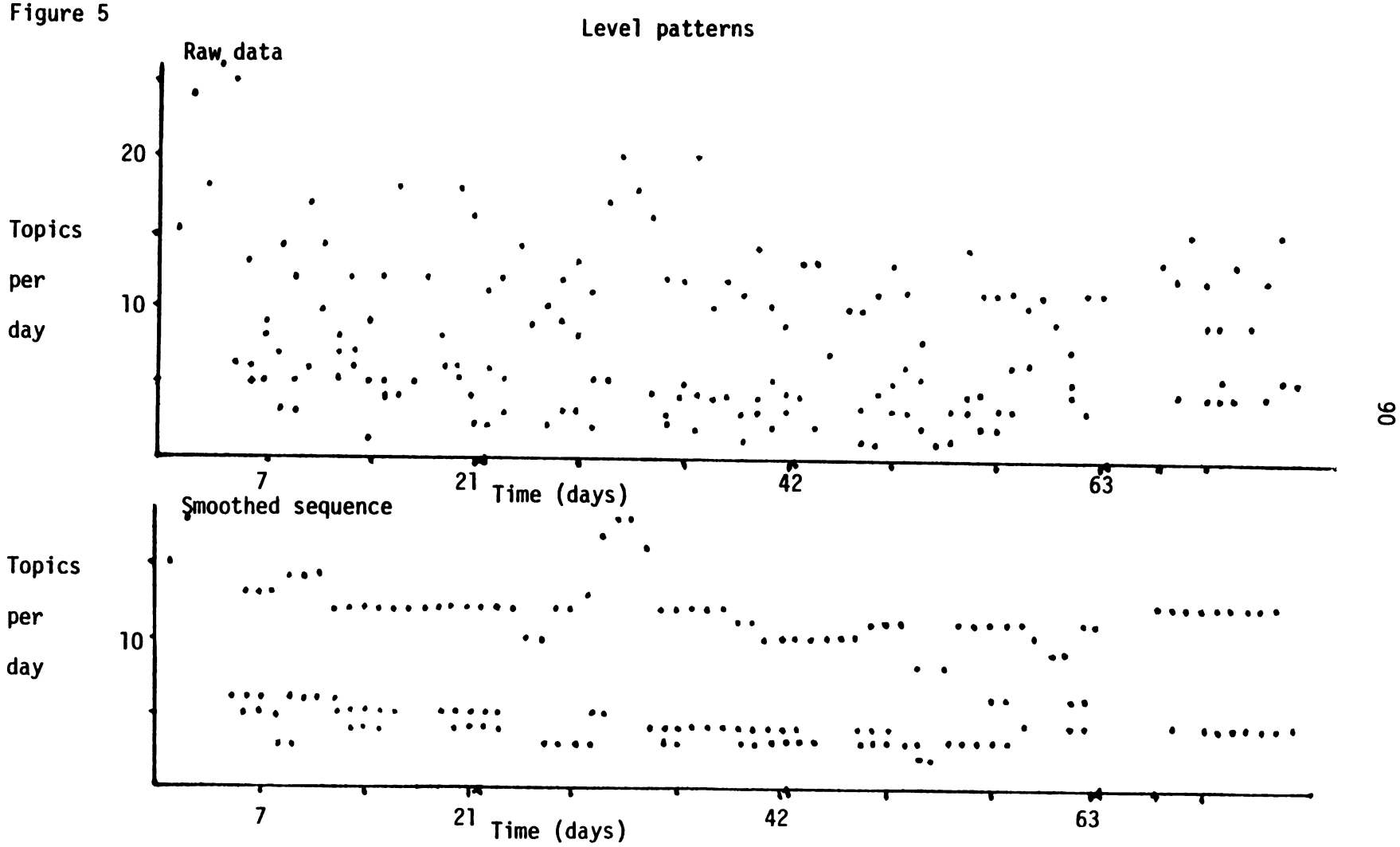

Level patterns
Raw data
20
Topics
per
day
10
7
21
Time (days)
42
63
Smoothed sequence
Topics
per
day
10
7
21
Time (days)
42
63

Table 8. Means and standard deviations of number of topics discussed per day by roommates (n = 12 dyads) at Michigan State University during four periods of fall quarter, 1980.*

Period	n	M	SD
1[a]	215	7.06	4.50
2[b]	216	6.43	4.08
3[c]	208	6.11	3.87
4[d]	79	7.15	3.96

[a]Weeks 1-3

[b]Weeks 4-6

[c]Weeks 7-9

[d]Post-Thanksgiving

*Friedman χ_r^2 = 8.00, df = 3. $p<.05$

Table 9. Aggregate frequencies of comparison categories of topics discussed by roommates (n = 12 dyads) at Michigan State University during four periods of fall quarter, 1980.

Comparison Category	Period				χ^2[e]
	1[a]	2[b]	3[c]	4[d]	
External	268	266	244	82	3.97
Personal	869	822	782	358	9.92*
Shared	160	136	132	62	4.10
Relational	217	138	161	69	19.25**

[a]Weeks 1-3

[b]Weeks 4-6

[c]Weeks 7-9

[d]Post-Thanksgiving

[e]df = 3.
*$p<.05$

**$p<.001$

significant test results, with frequencies decreasing markedly from Period 1 to Period 2 and rising slightly in Periods 3 and 4.

Research Question 5: What over-time patterns can be seen in ratings of satisfaction with casual, serious, and relational discussions and with the total relationship?

Figure 6 shows raw data and smoothed-sequence graphs for satisfaction with the total relationship over time. Figure 7 shows the graphs for satisfaction with casual conversations, and Figure 8 shows weekly mean satisfaction ratings of serious and relational discussions by time.

In general, each observer's four sets of ratings follow roughly the same pattern. This tendency is somewhat distorted by the fact that ratings were only made when a discussion occurred, so when serious and relational discussions become less frequent each graphed point is based on fewer ratings and hence is less stable. The actual ratings may also be distorted by scarcity of that kind of discussion. They may be valued more because they are less common or simply trigger a more extreme reaction without any recent comparisons. Considering all four sets of satisfaction ratings, four relationships show a generally level pattern, three a fluctuating pattern, two a descending pattern, two a combination fluctuating-ascending pattern, one a U-shaped pattern, and one an ascending pattern. Many of the patterns also show a dip or concavity in weeks 7-9.

Means and standard deviations for each of the ratings over the four time periods are shown in Table 10. Period means for each rating were tested using the Friedman analysis of variance by ranks. The only

Figure 6. Daily ratings of the total relationship by days of fall quarter, 1980 at Michigan State University for each of 13 dyads.

Figure 6

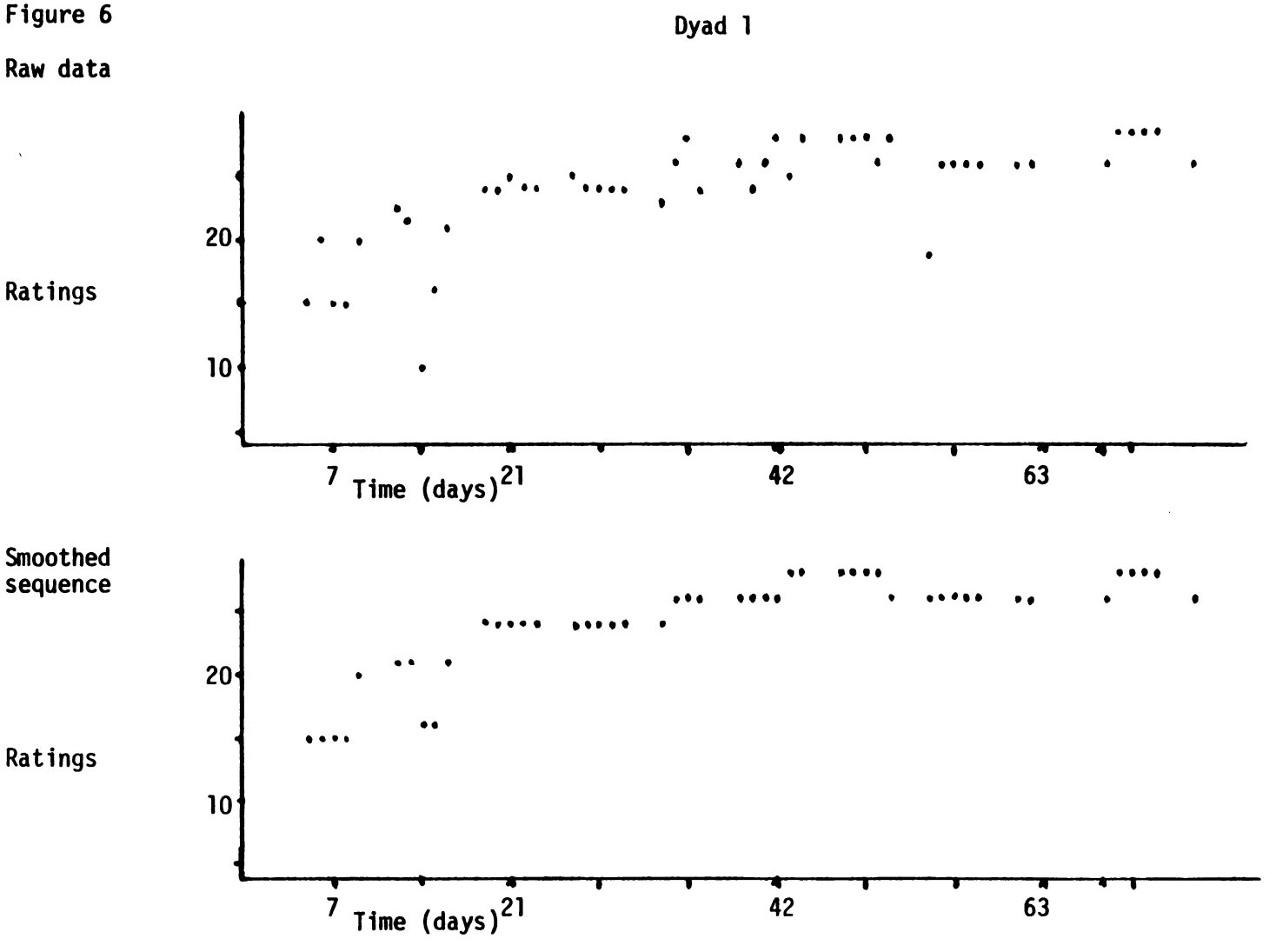
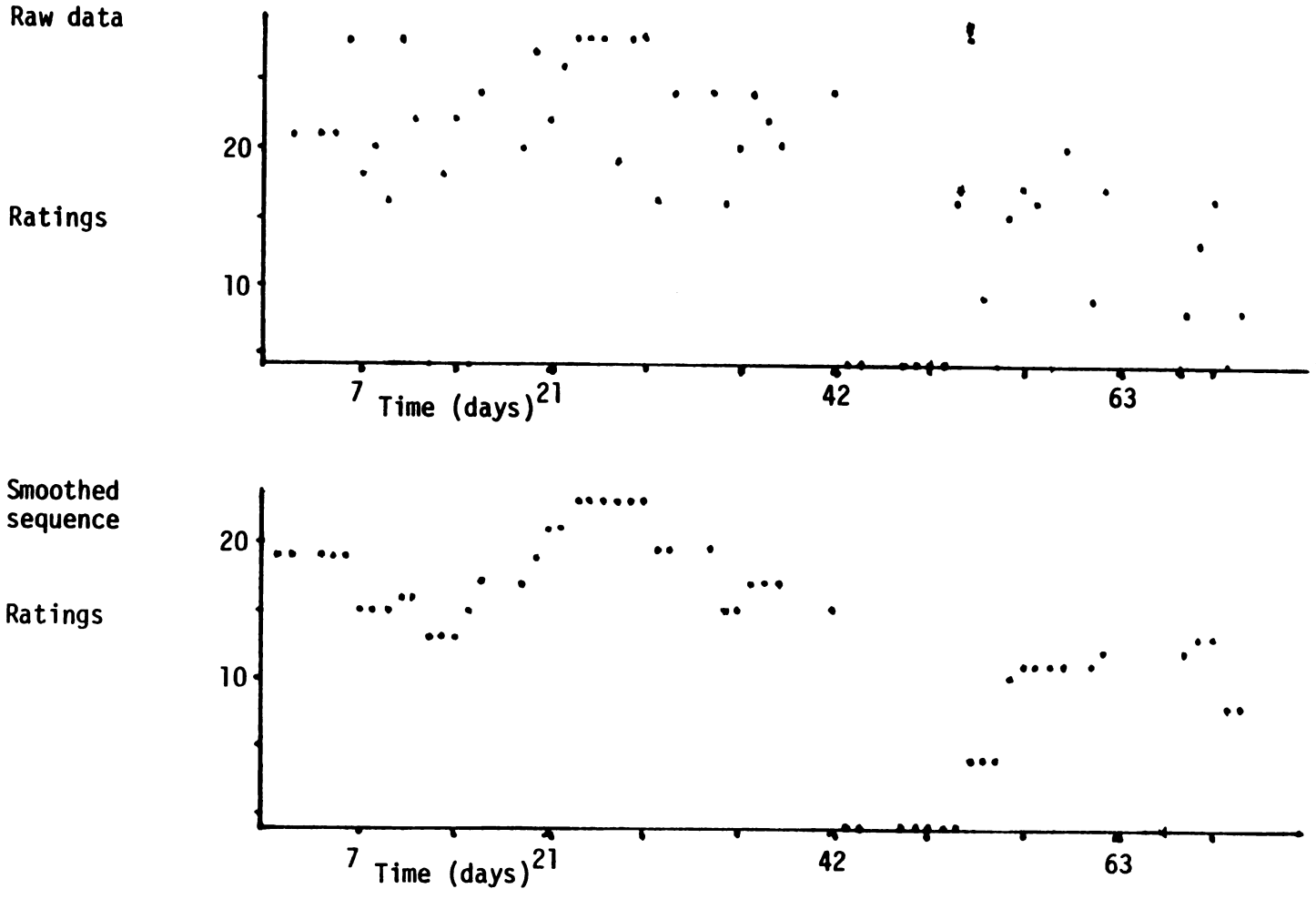

Dyad 1
Raw data
Ratings
20
10
7
Time (days)
21
42
63
Smoothed sequence
Ratings
20
10
7
Time (days)
21
42
63

Figure 6

Dyad 2

*These ratings reflect a hostile attitude, e.g. "I'm glad we had a fight because I hate her."



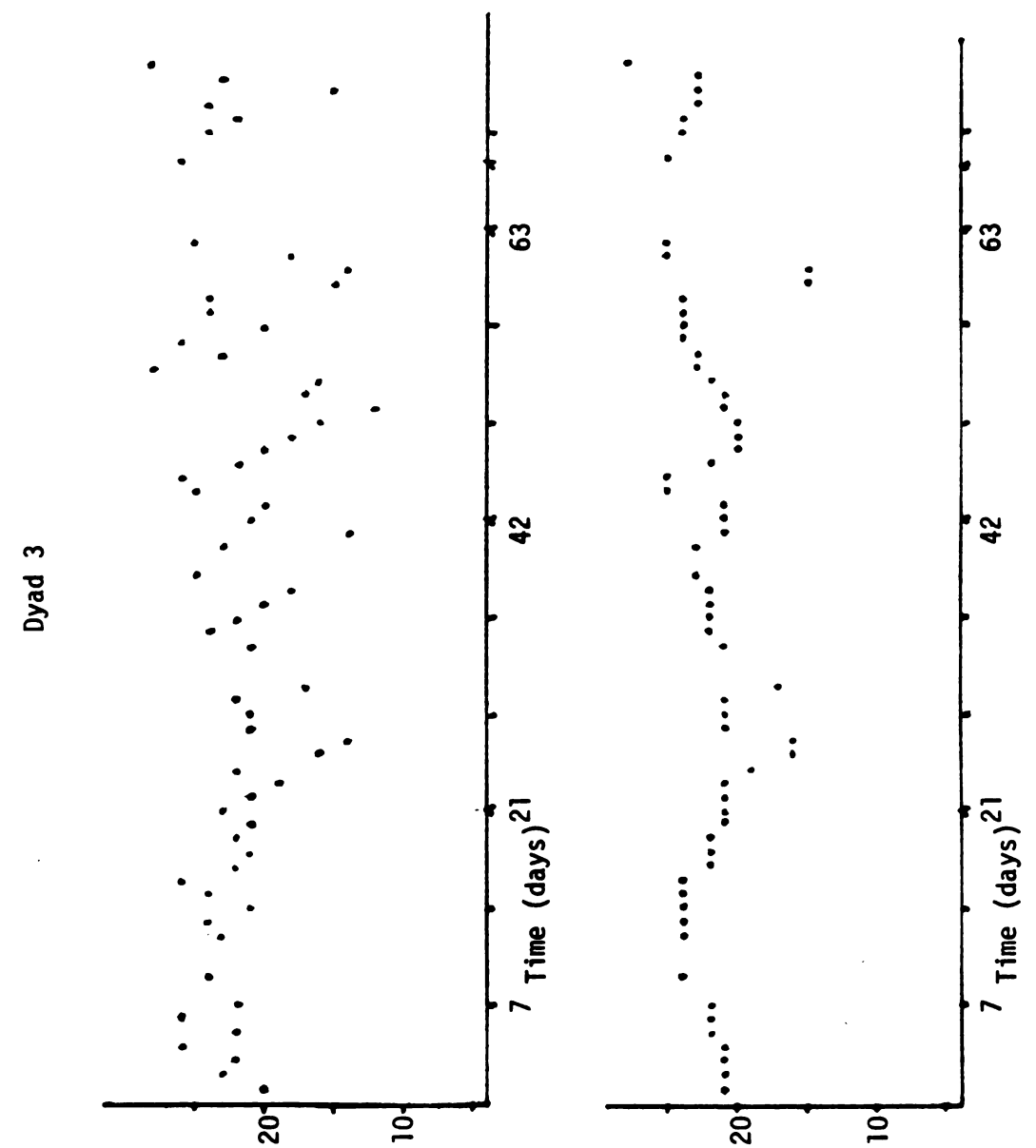

Dyad 3
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 6

Figure 6

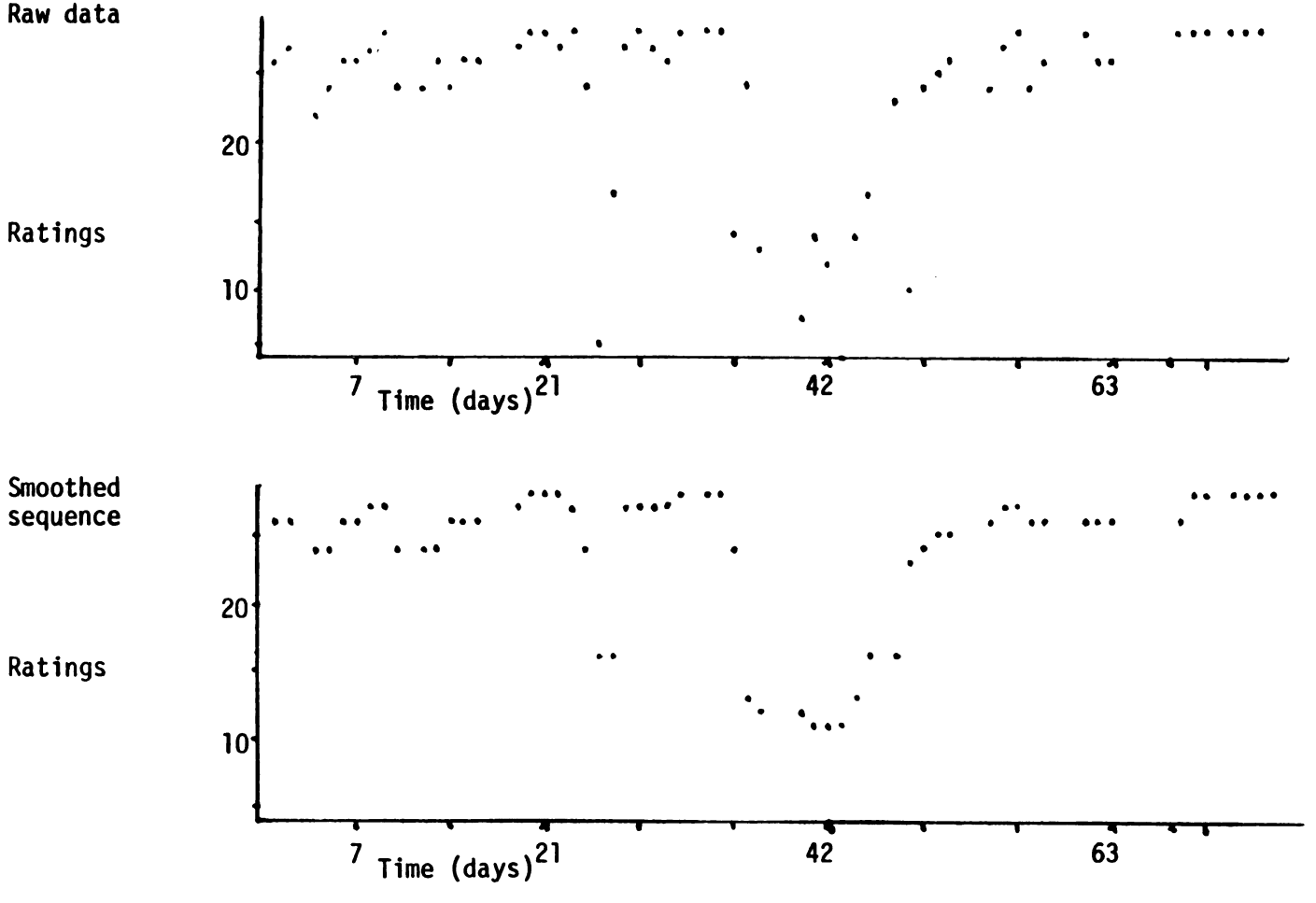

Dyad 4
Raw data
20
Ratings
10
7
Time (days)
21
42
63
Smoothed sequence
20
Ratings
10
7
Time (days)
21
42
63

Figure 6

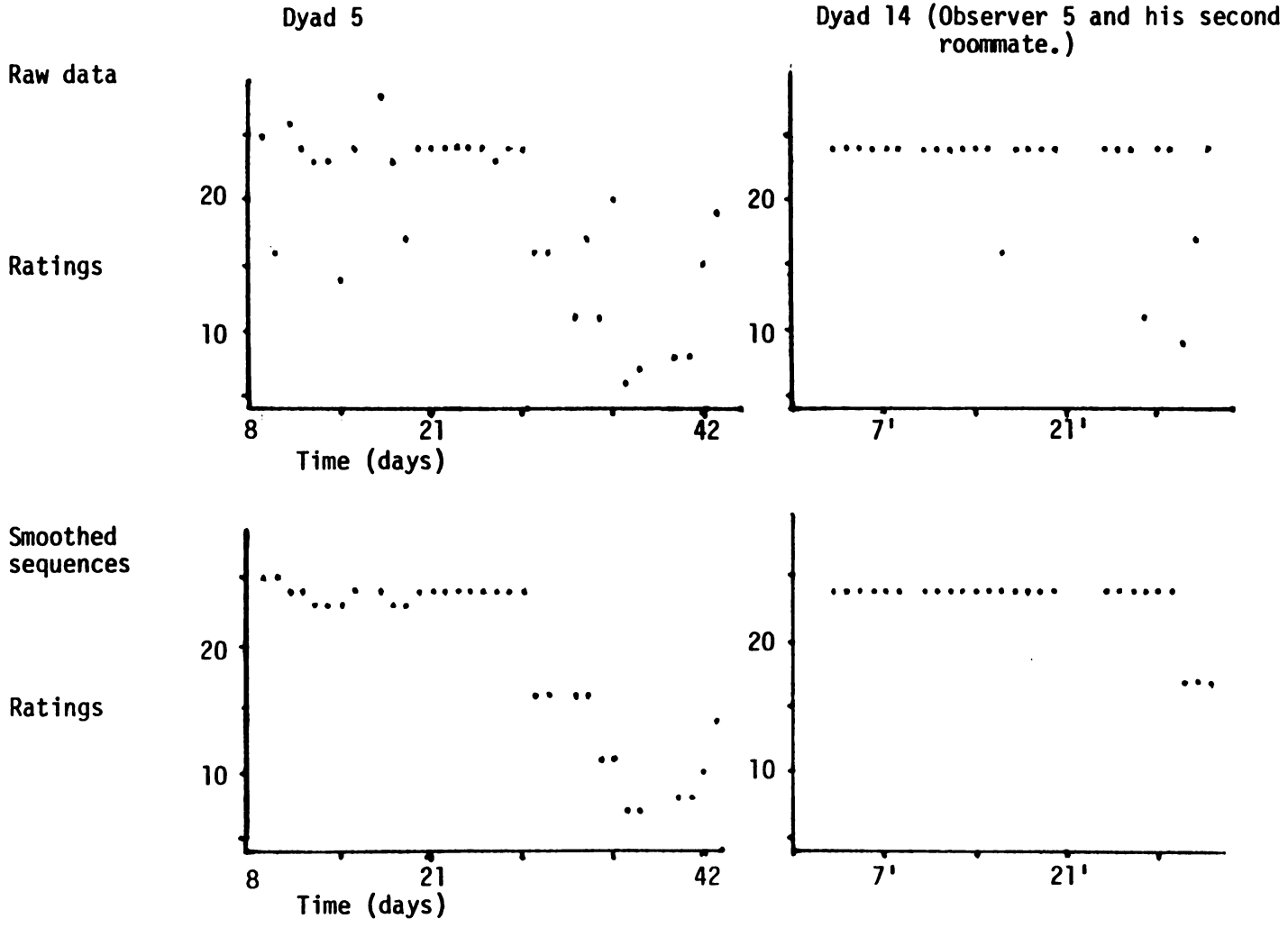

Dyad 5
Dyad 14 (Observer 5 and his second roommate.)
Raw data
Ratings
20
10
8
21
42
Time (days)
7'
21'
Smoothed sequences
Ratings
20
10
8
21
42
Time (days)
7'
21'

Figure 6

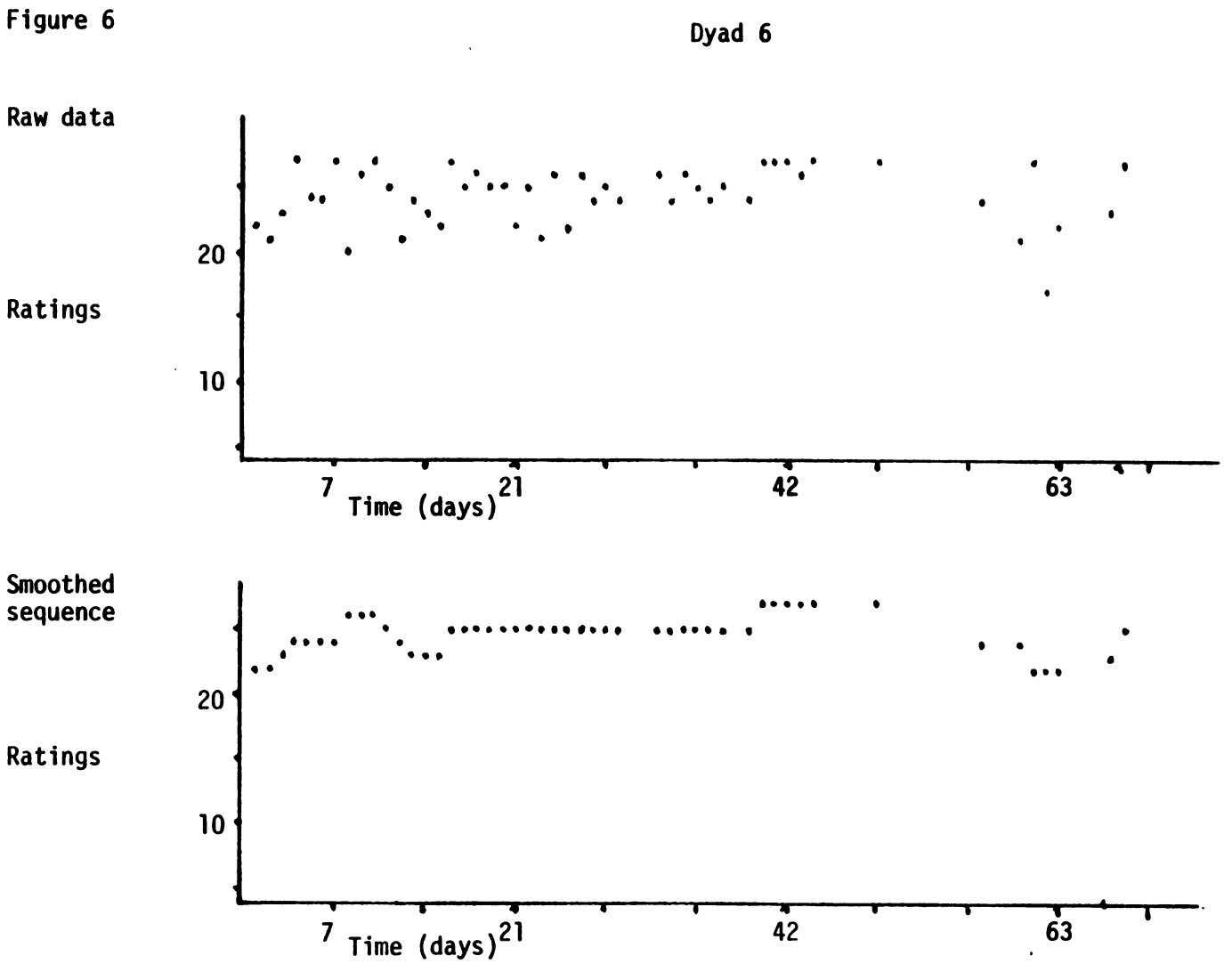

Dyad 6
Raw data
20
Ratings
10
7
21
42
63
Time (days)
Smoothed sequence
20
Ratings
10
7
21
42
63
Time (days)

Figure 6

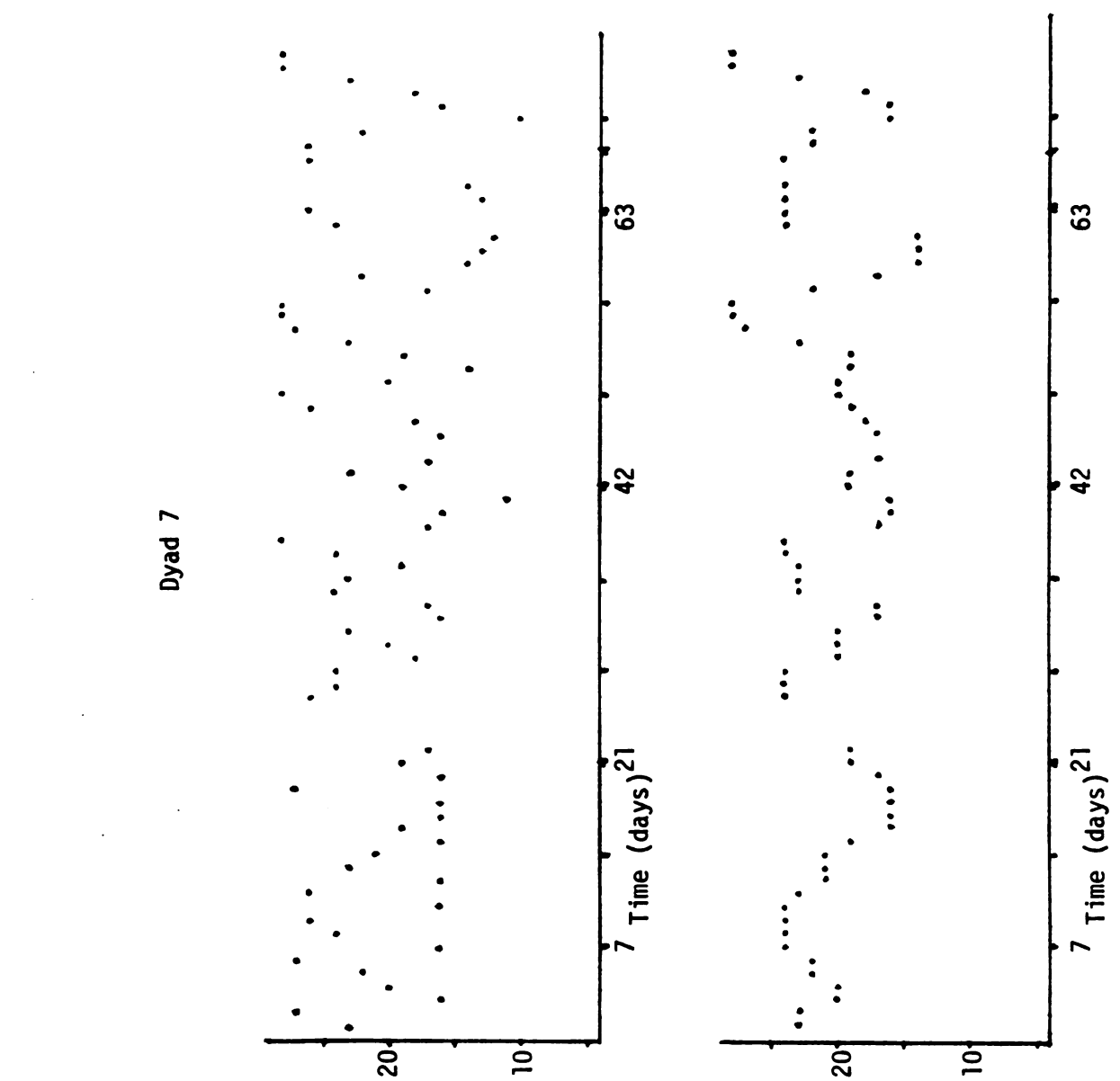
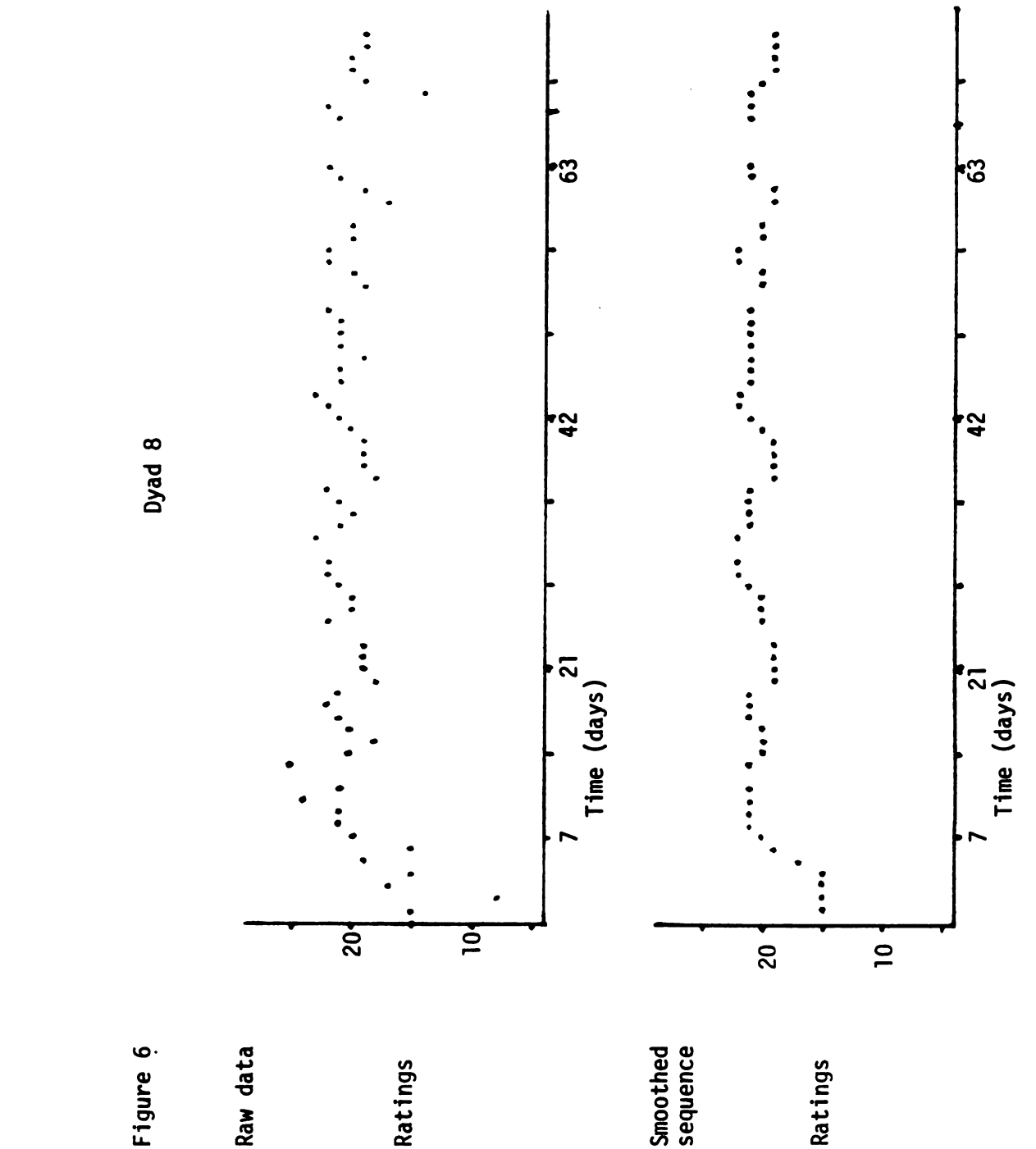

Dyad 7
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 6


Dyad 8
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

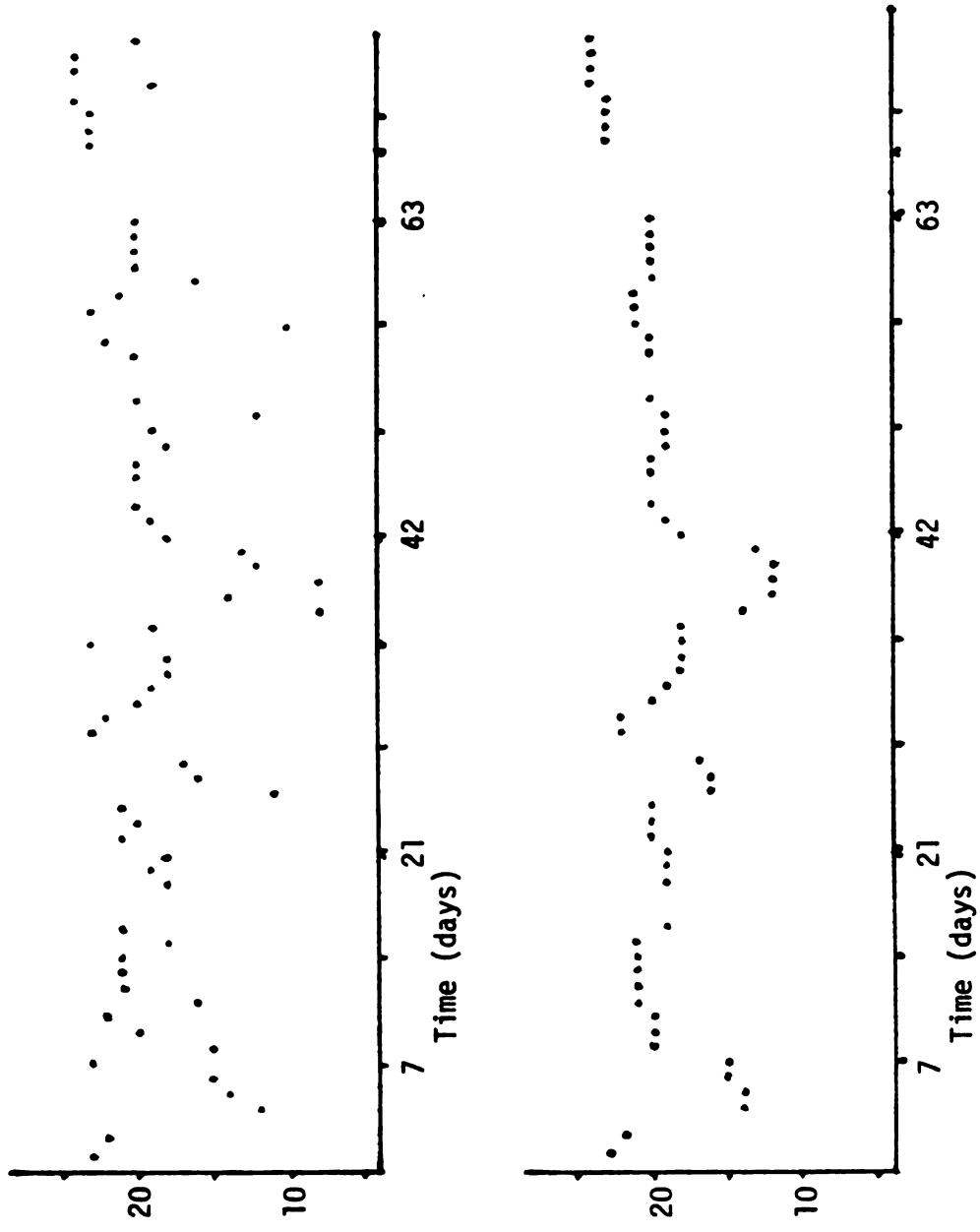

Dyad 9
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 6

Figure 6

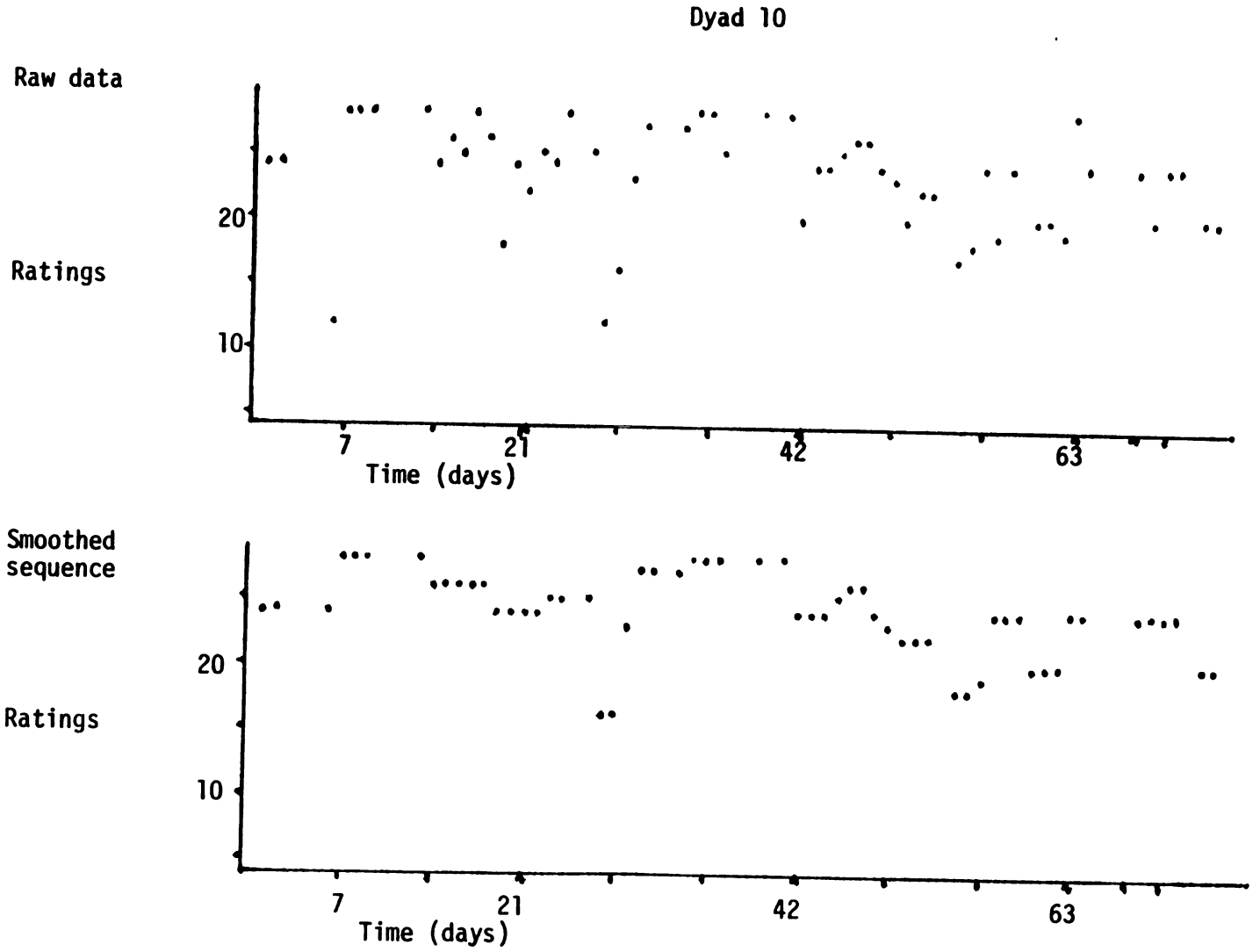

Dyad 10
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 6

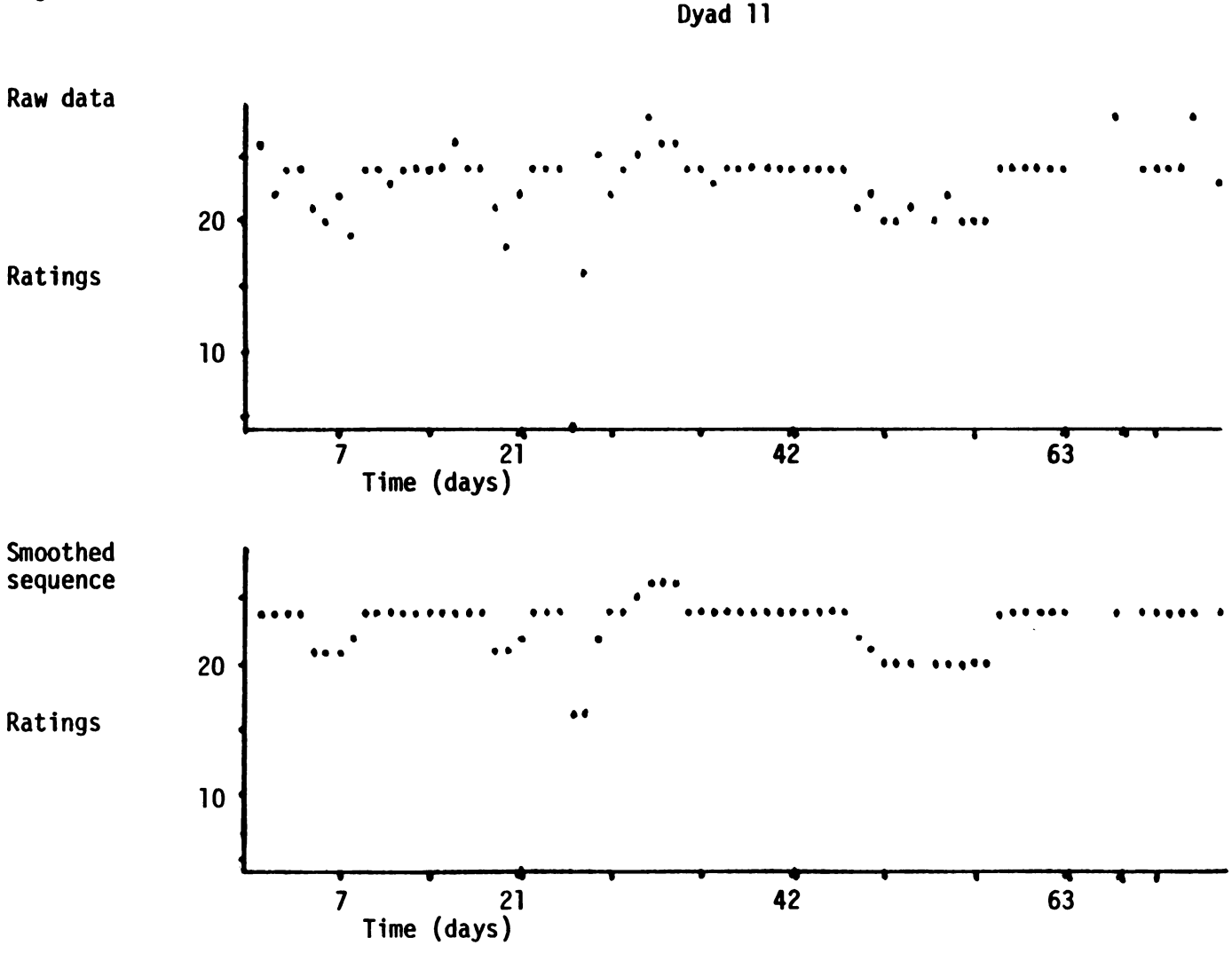

Dyad 11
Raw data
20
Ratings
10
7
21
42
63
Time (days)
Smoothed sequence
20
Ratings
10
7
21
42
63
Time (days)

Figure 6

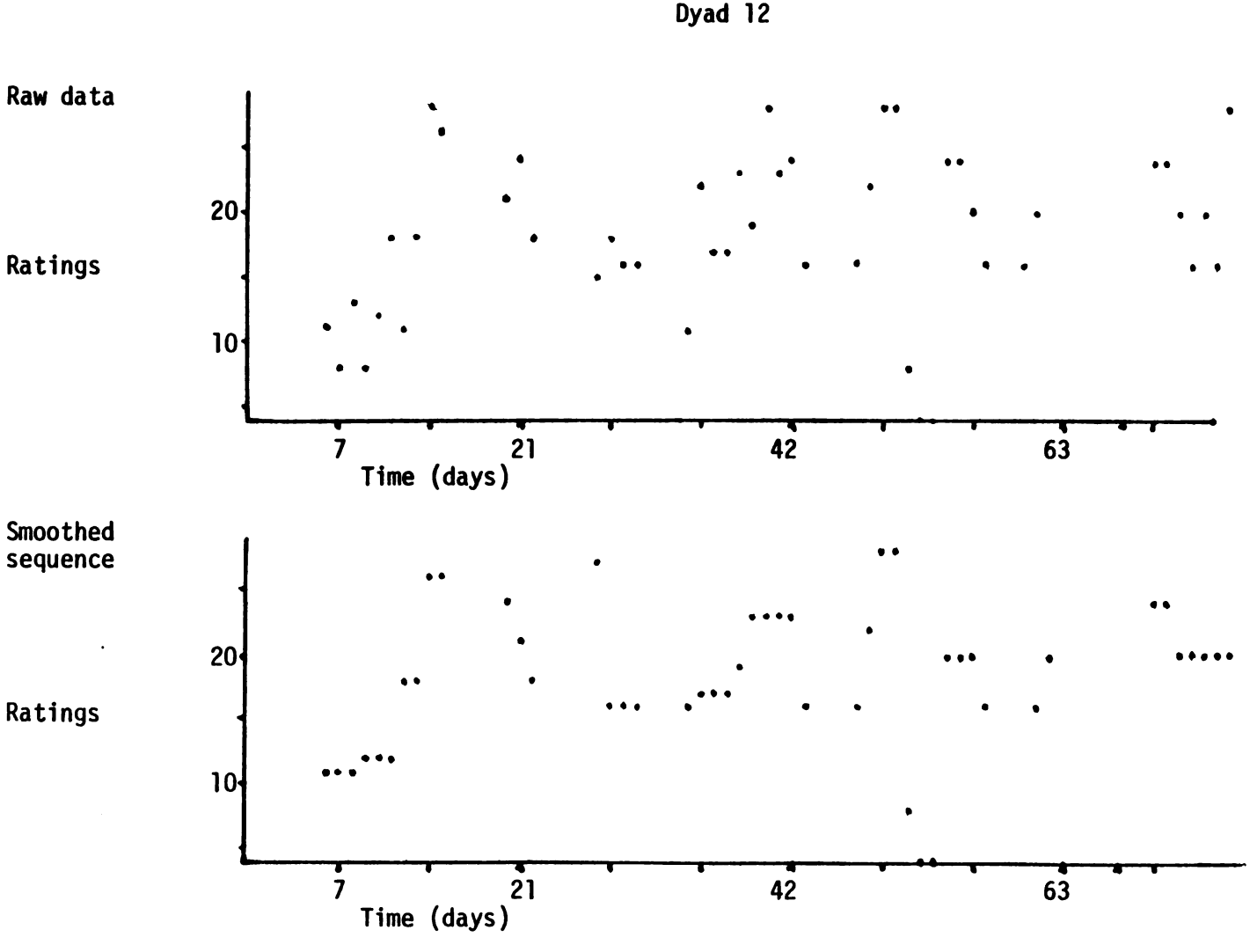

Dyad 12
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 6

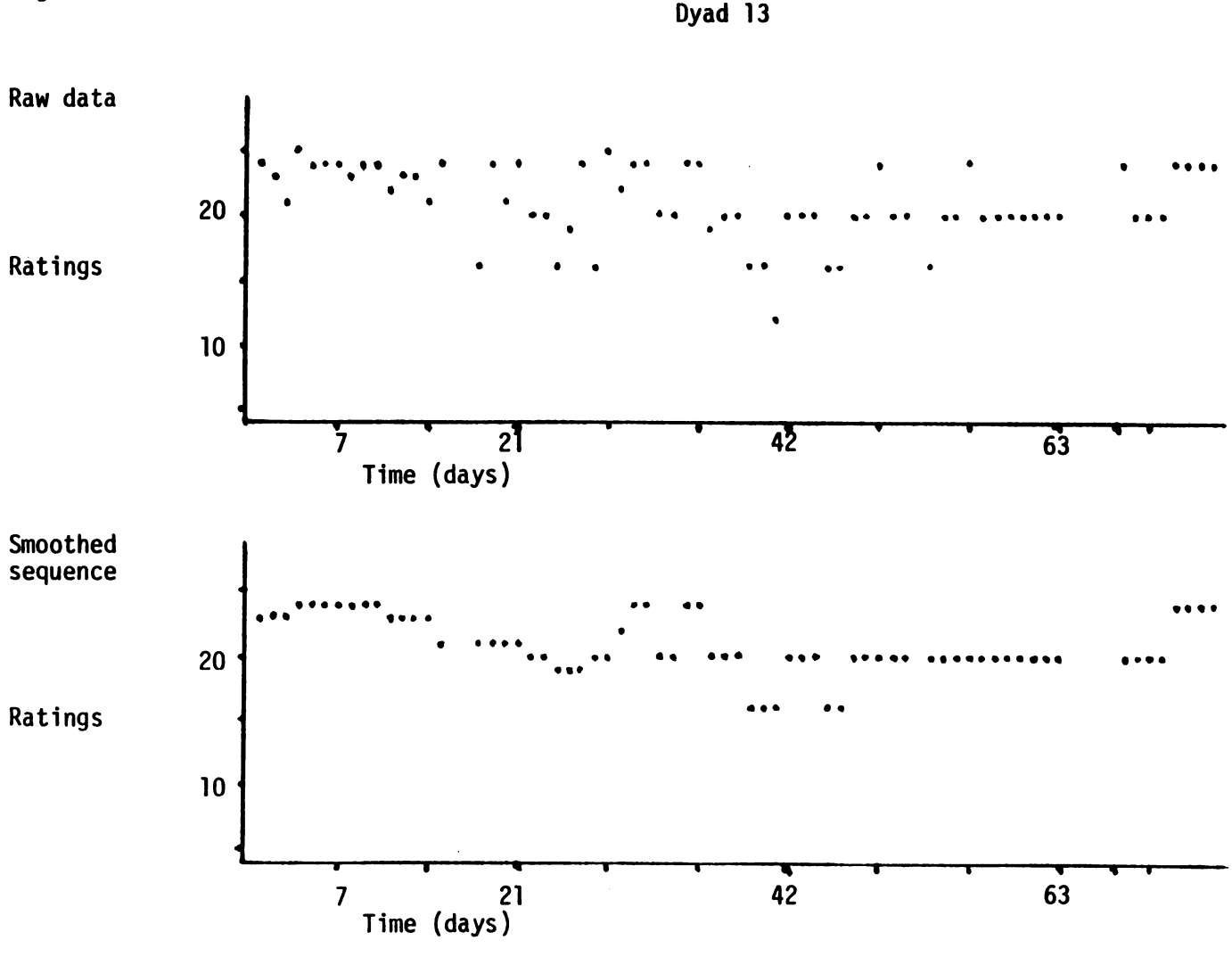

Dyad 13
Raw data
20
Ratings
10
7
21
42
63
Time (days)
Smoothed sequence
20
Ratings
10
7
21
42
63
Time (days)

Figure 7. Daily ratings of casual conversations by days of fall quarter, 1980 at Michigan State University for each of 13 dyads.

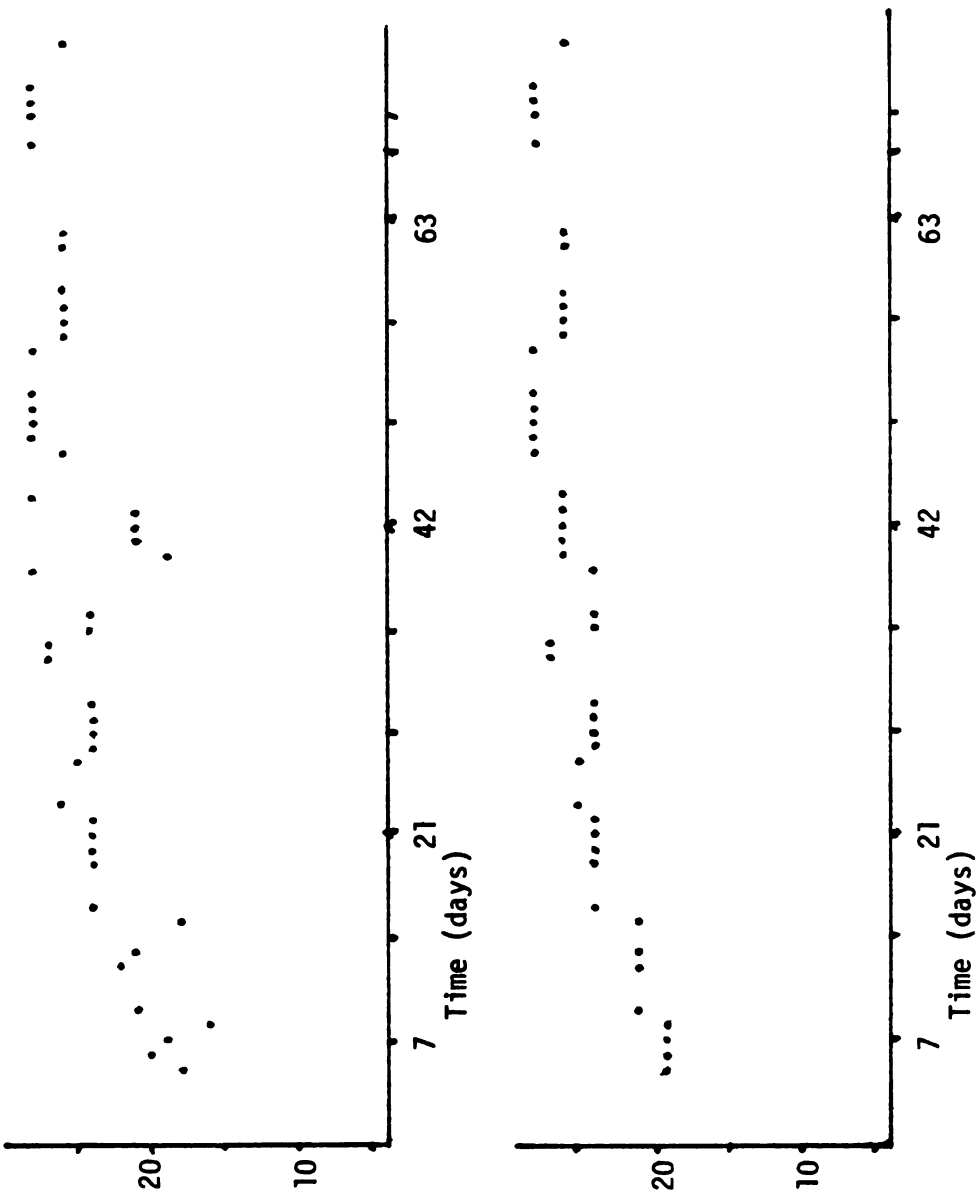
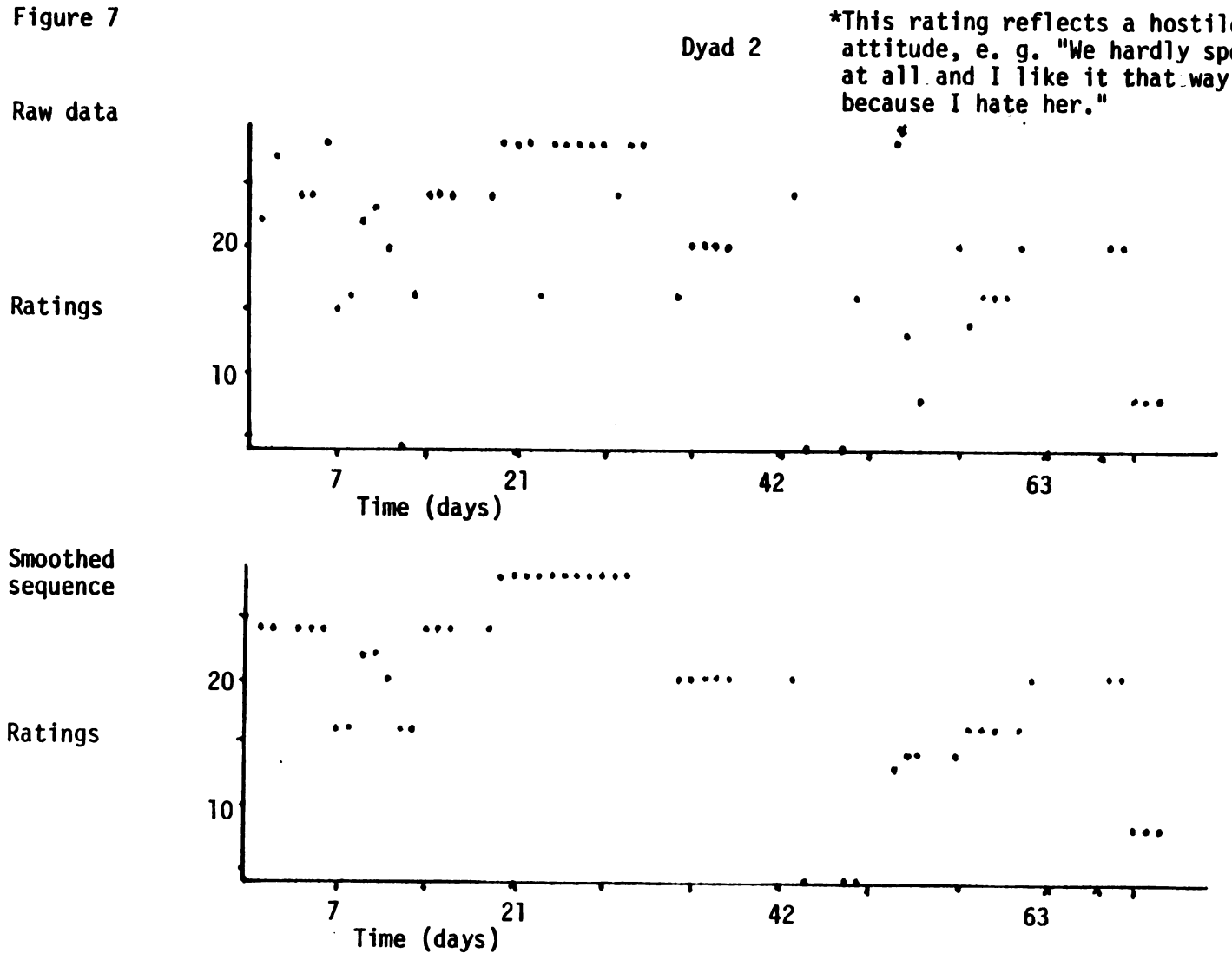

Dyad 1
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

Figure 7


Dyad 2
*This rating reflects a hostile attitude, e. g. "We hardly spoke at all and I like it that way because I hate her."
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

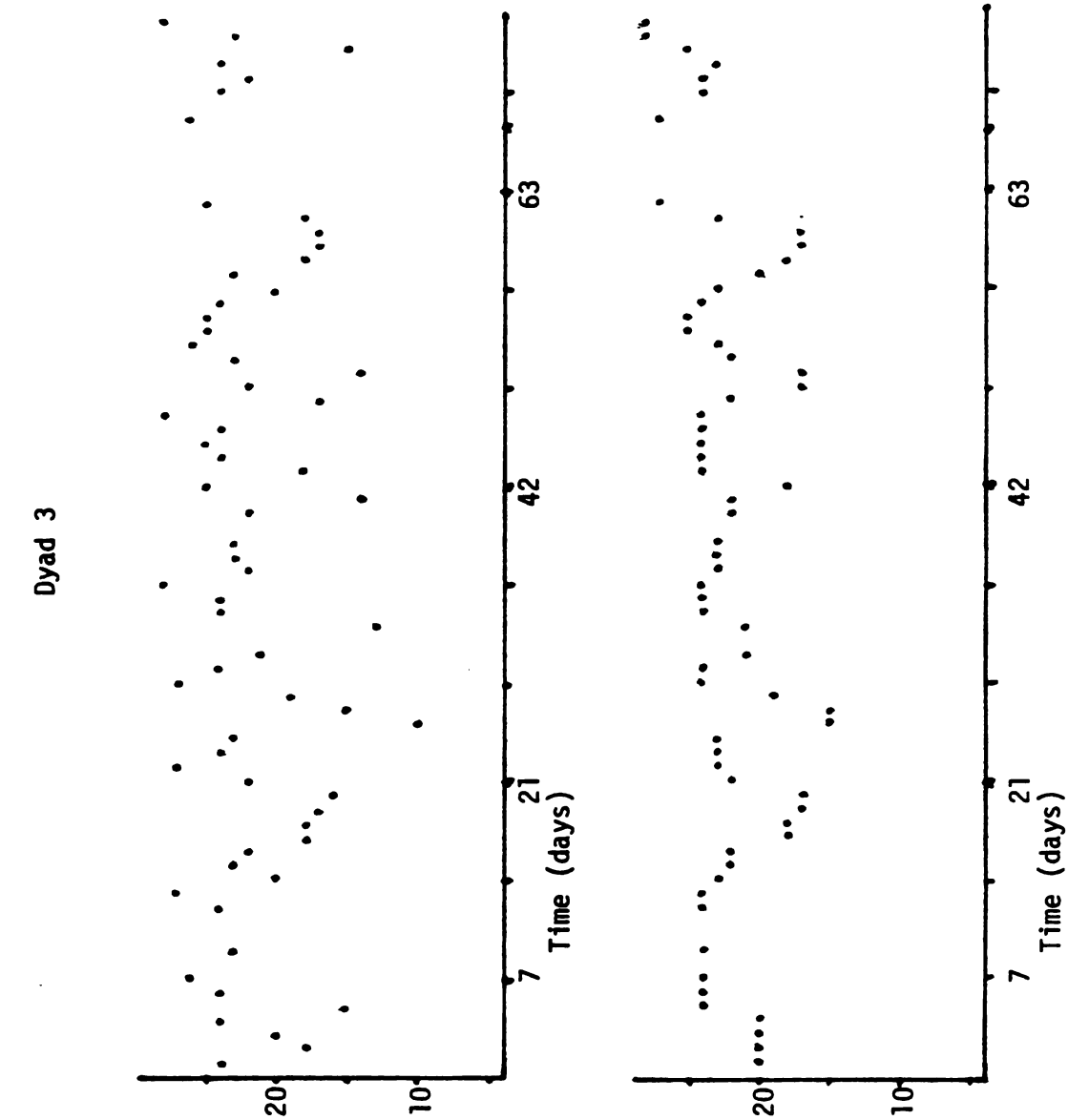

Dyad 3
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

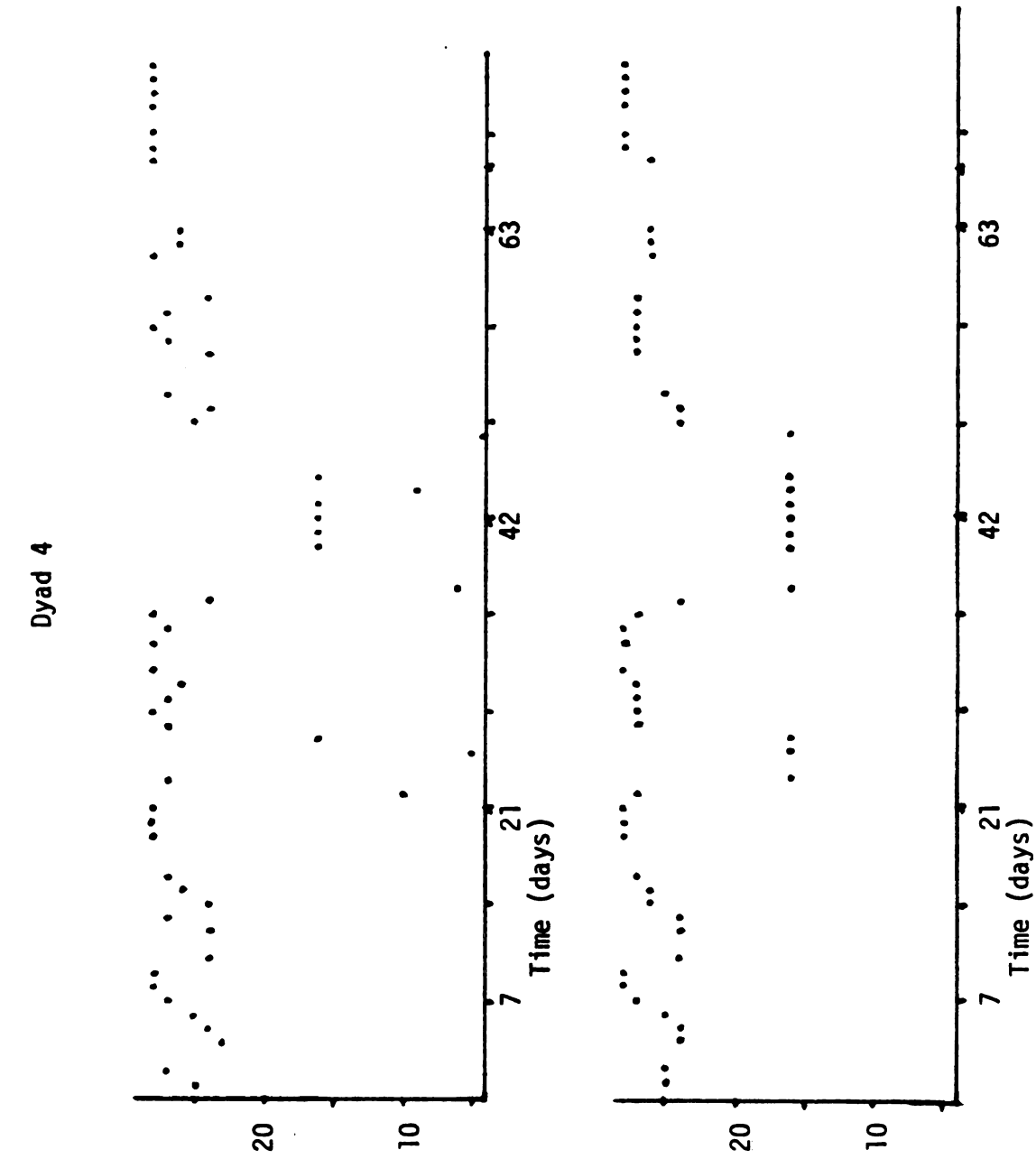

Dyad 4
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

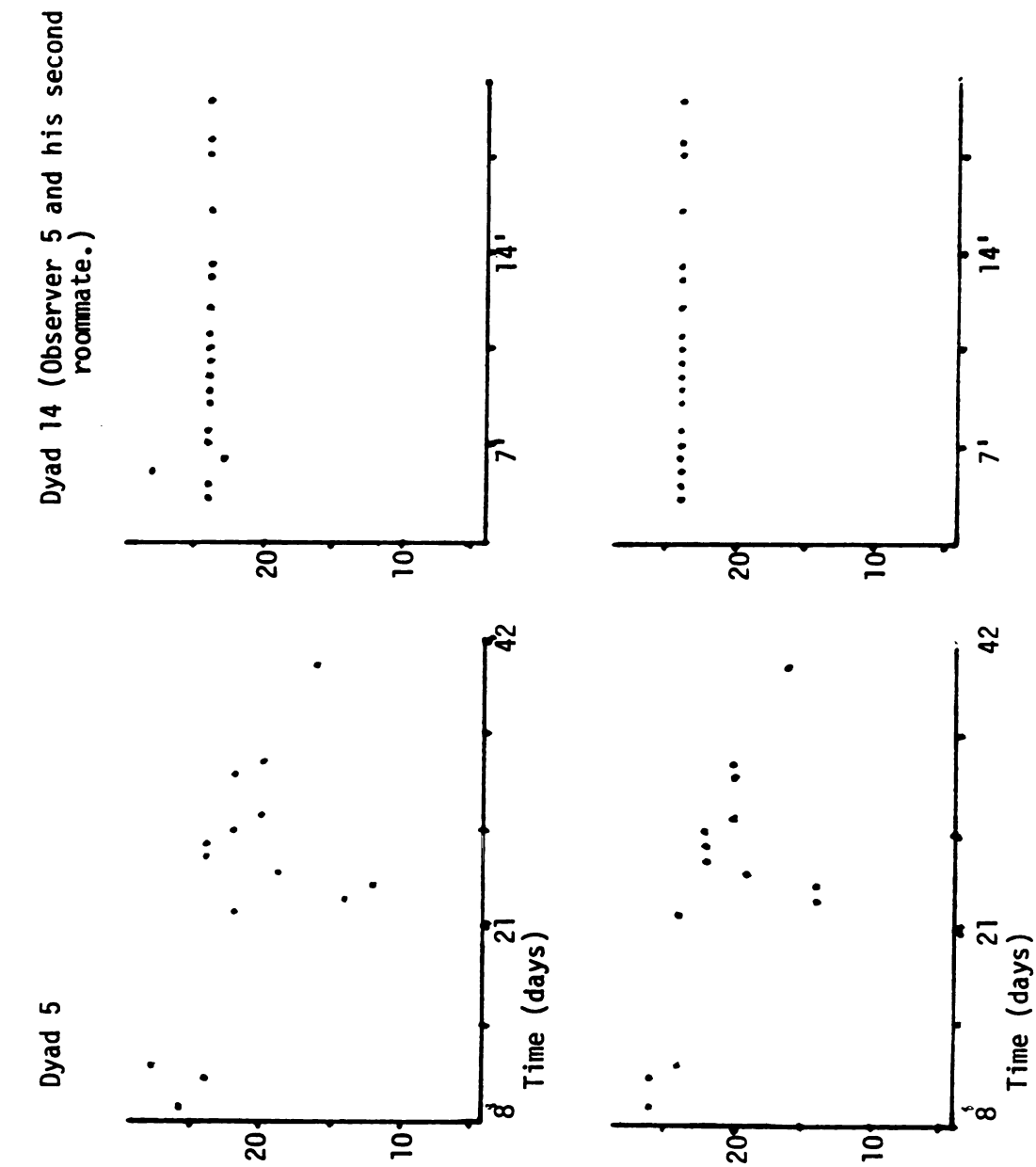

Dyad 5
Dyad 14 (Observer 5 and his second roommate.)
Raw data
Ratings
Smoothed sequences
Ratings
20
10
8
21
42
7'
14'
Time (days)

Figure 7

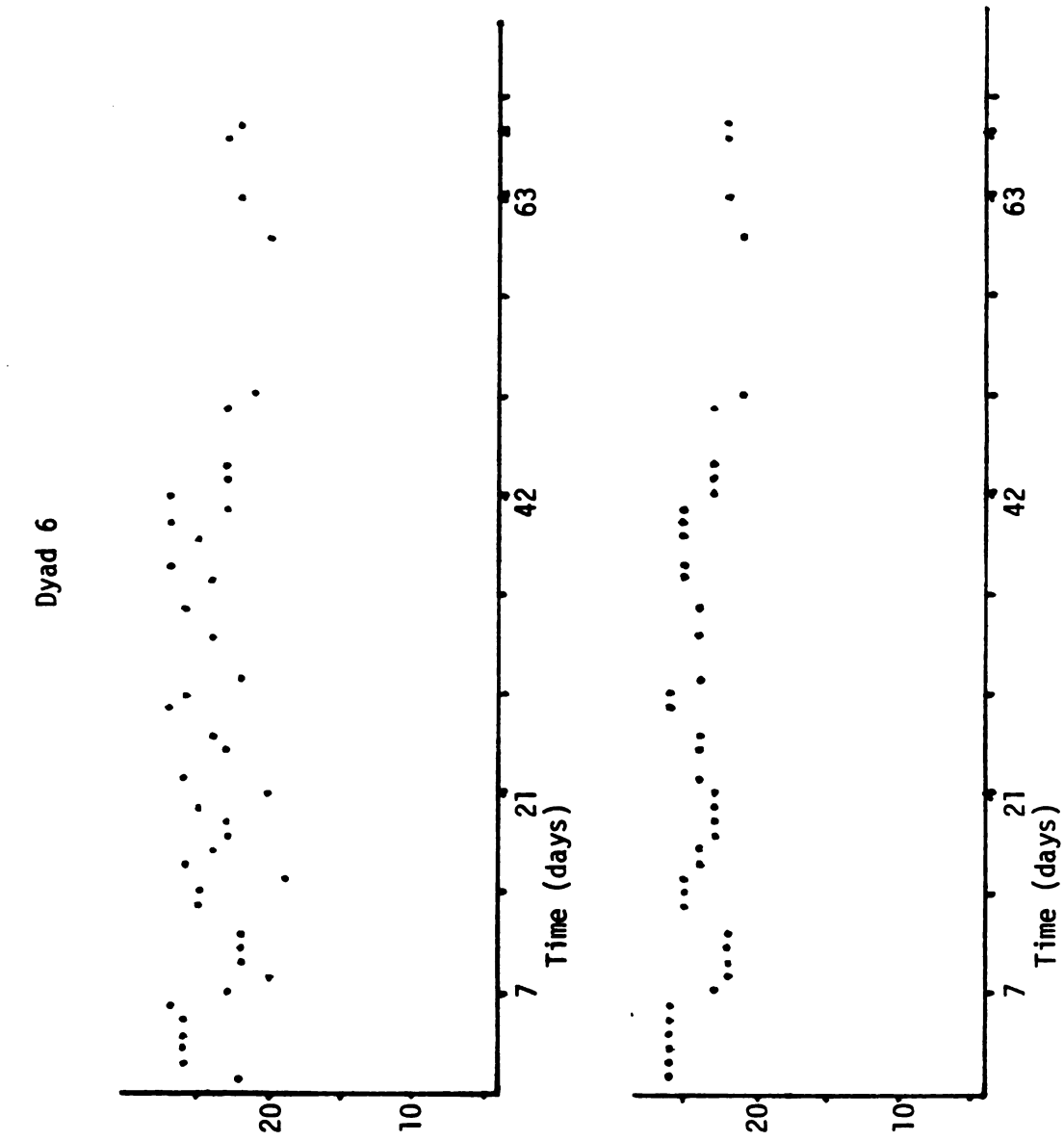

Dyad 6
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

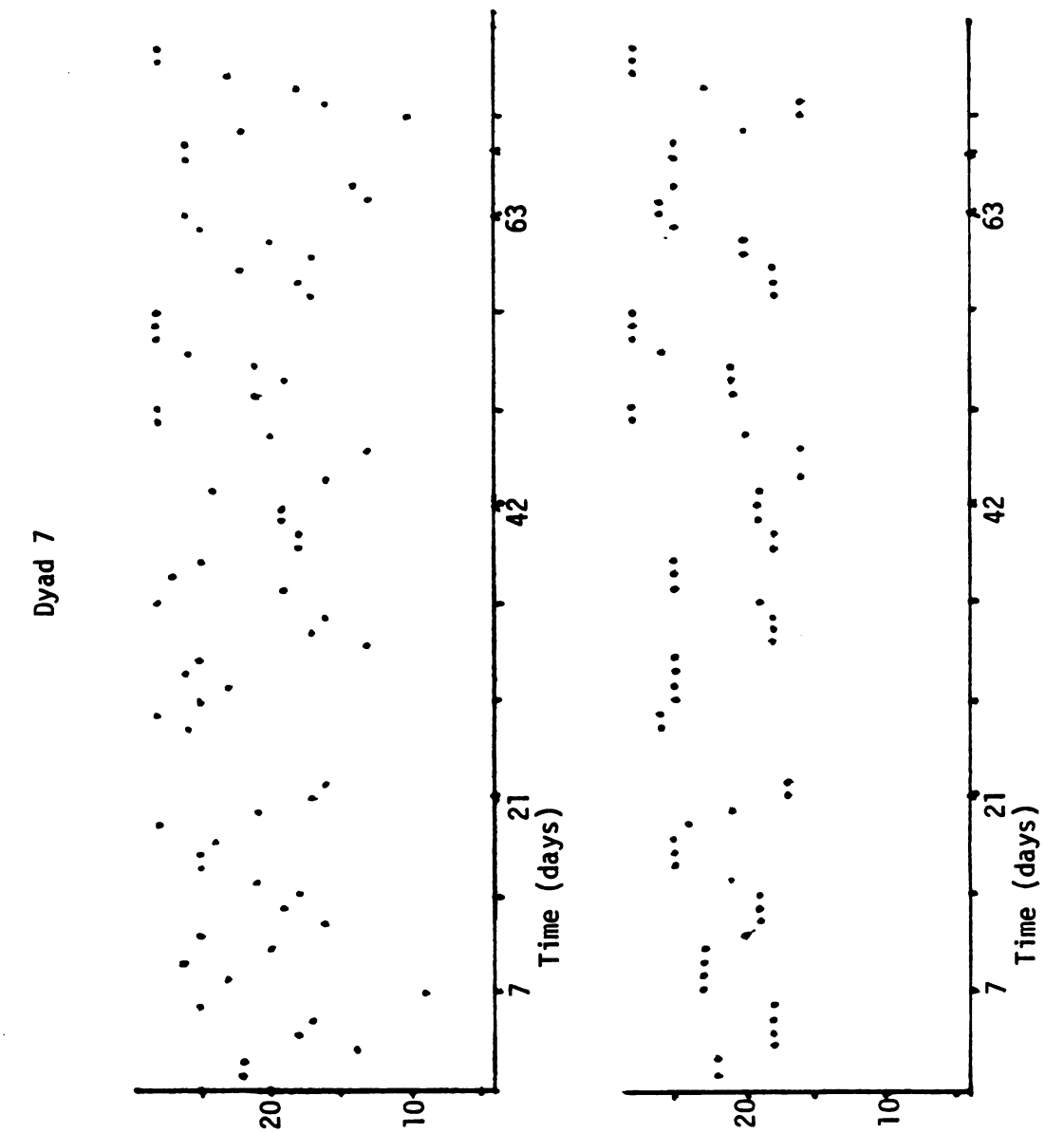

Dyad 7
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

Figure 7

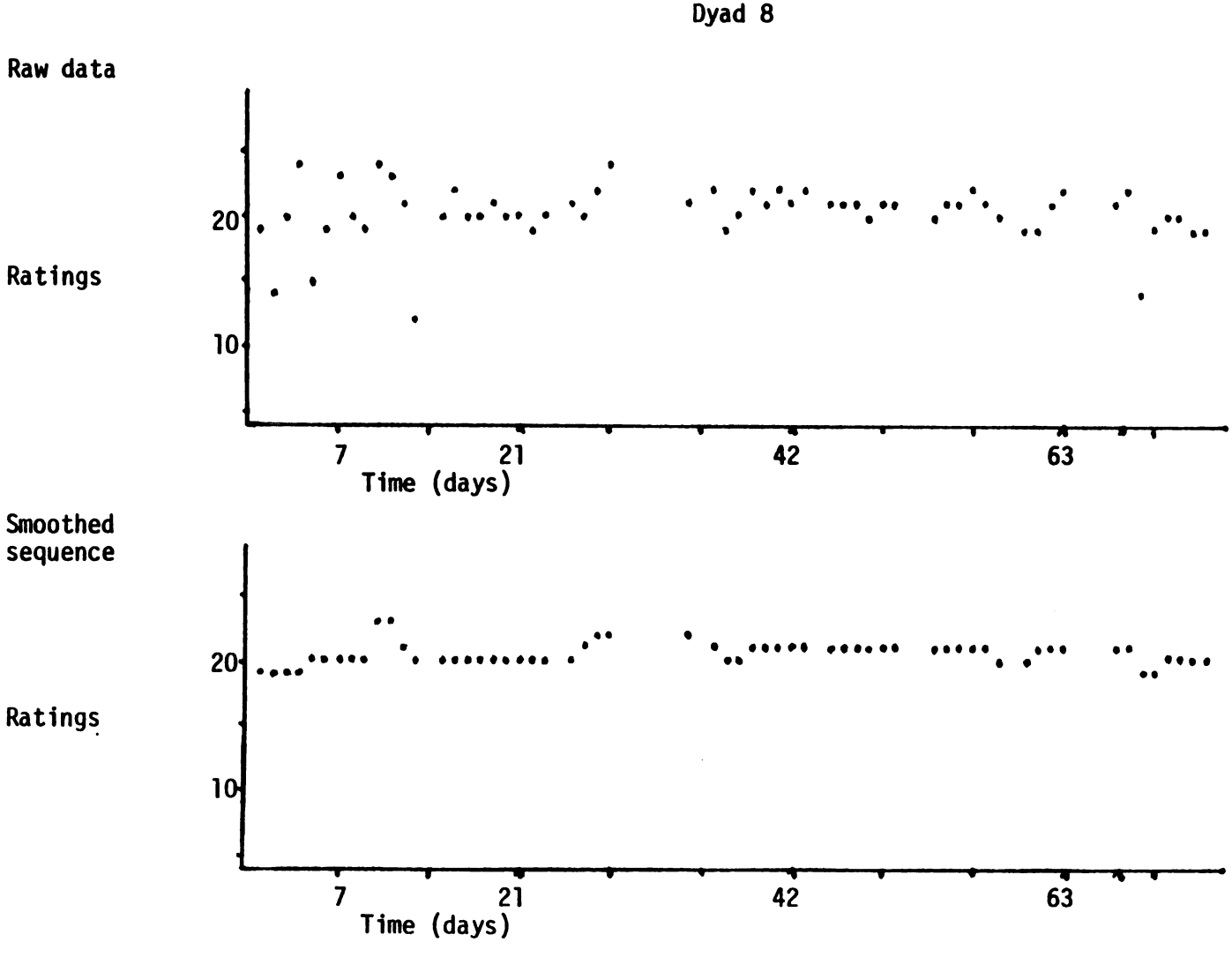
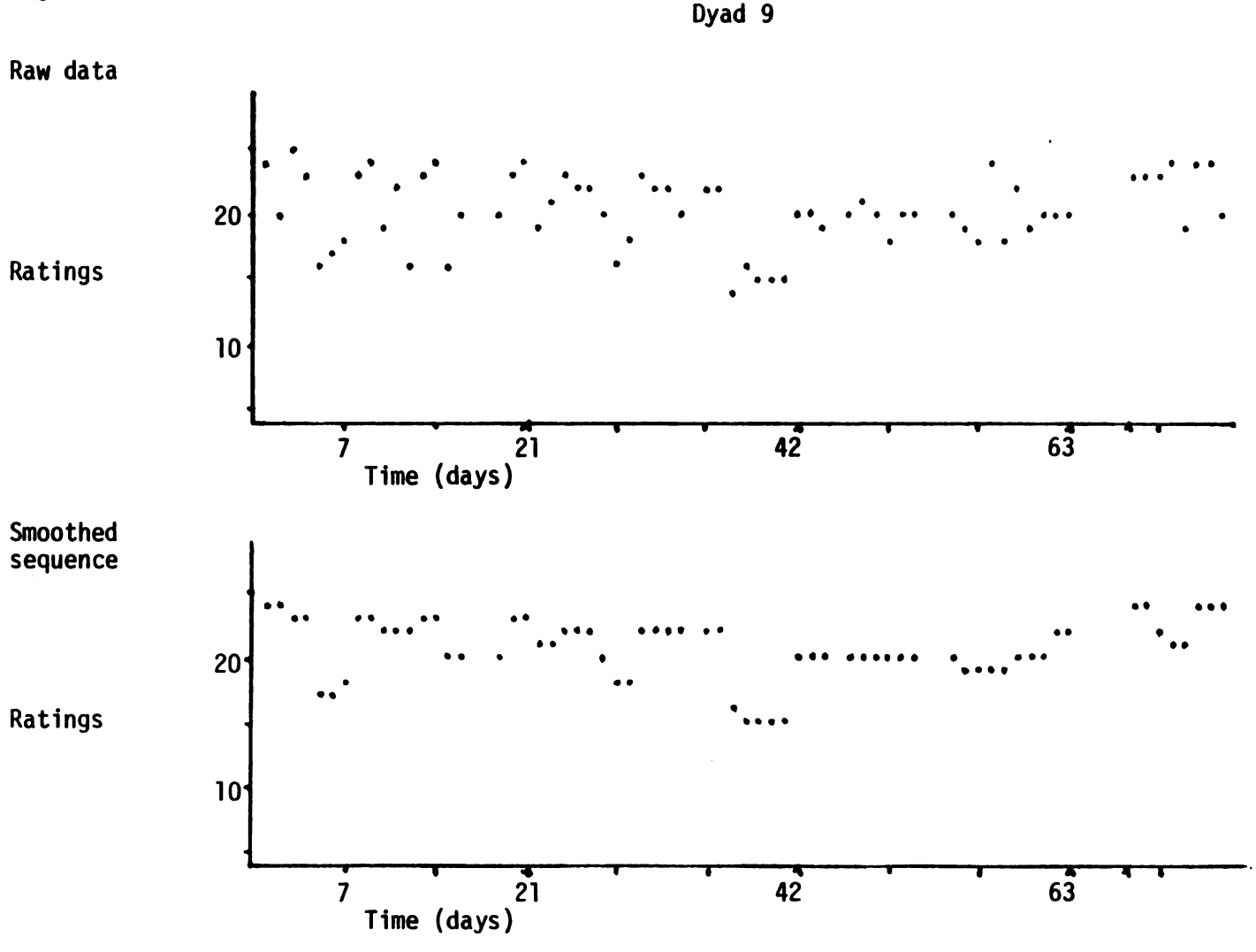

Dyad 8
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7


Dyad 9
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

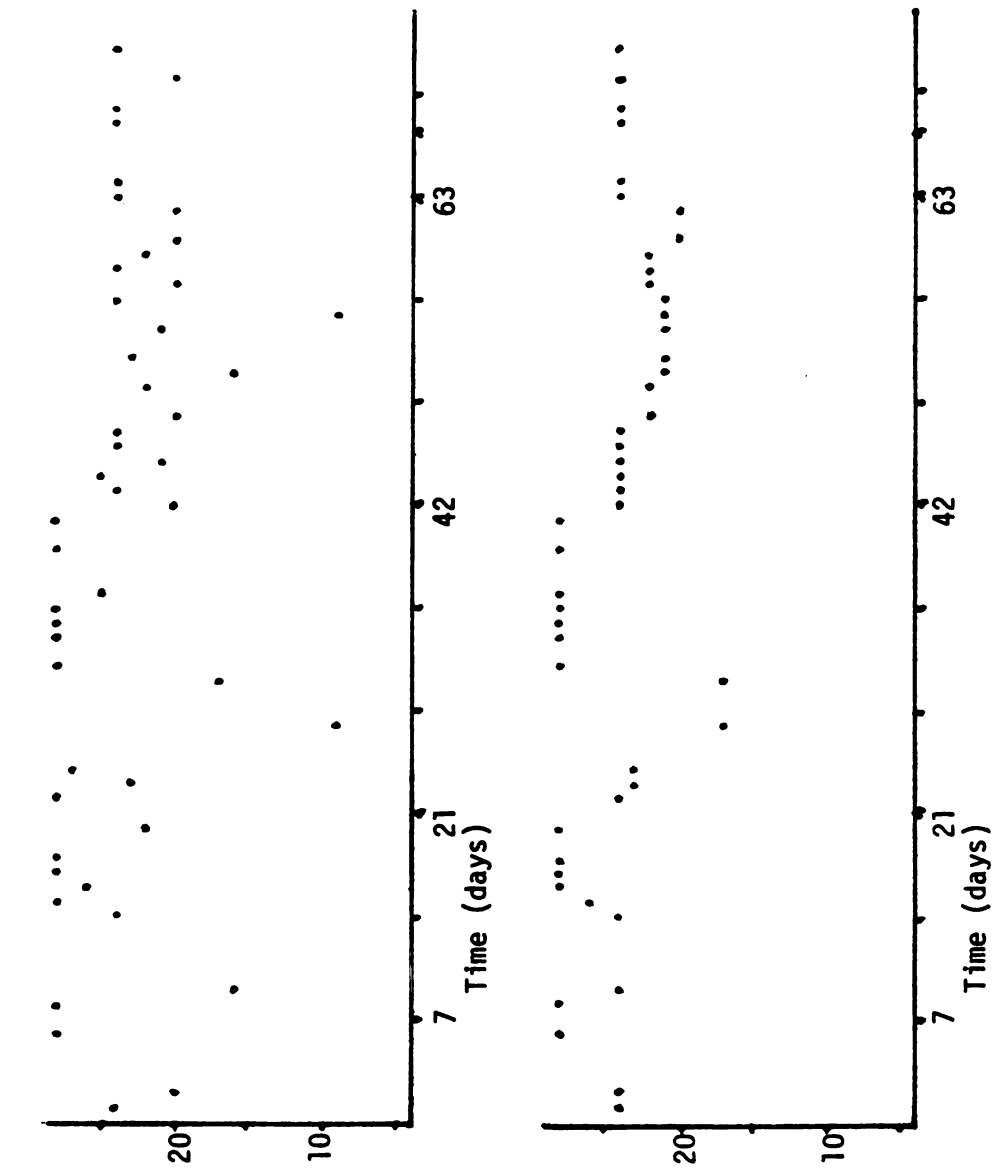

Dyad 10
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

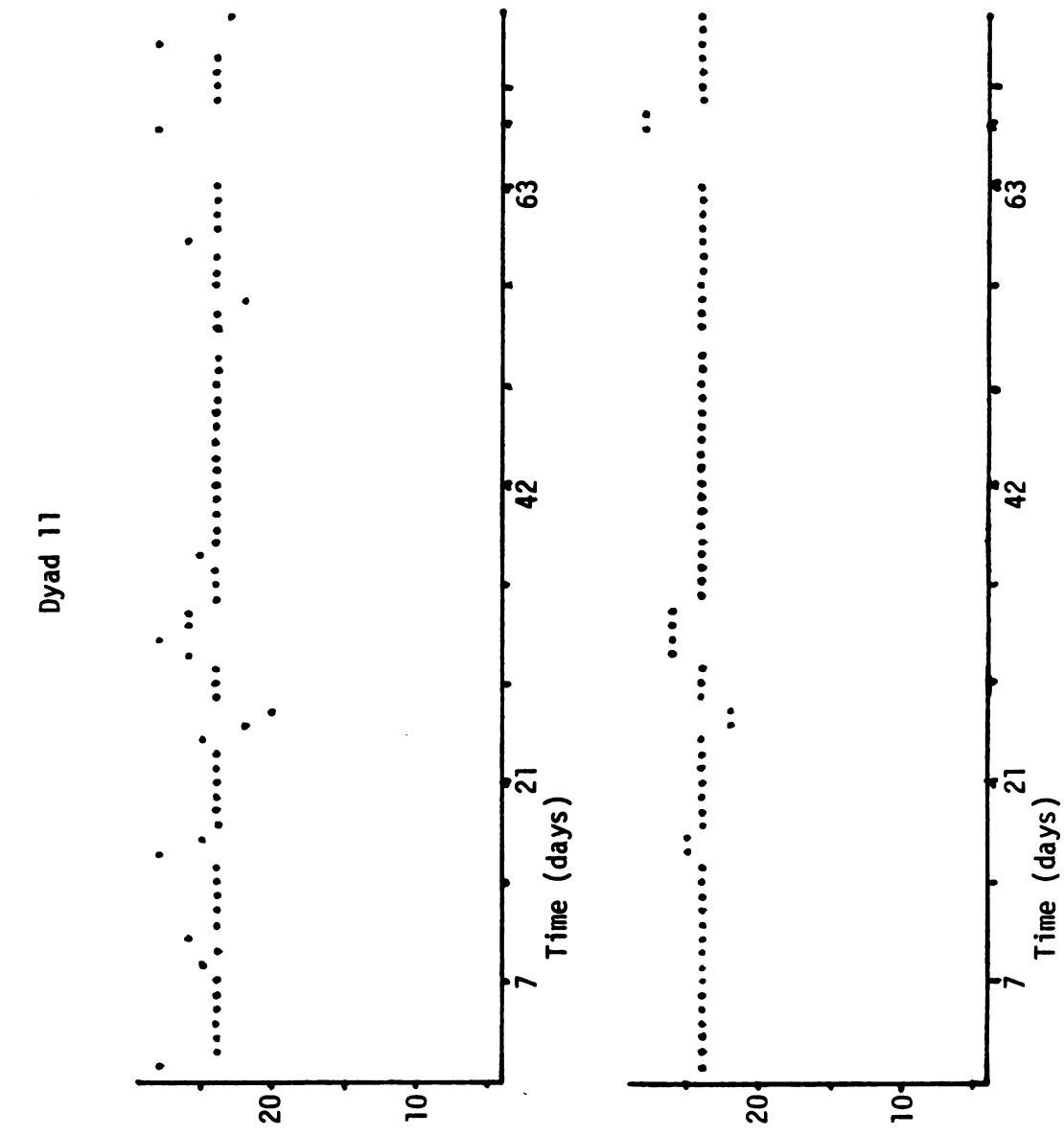

Dyad 11
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

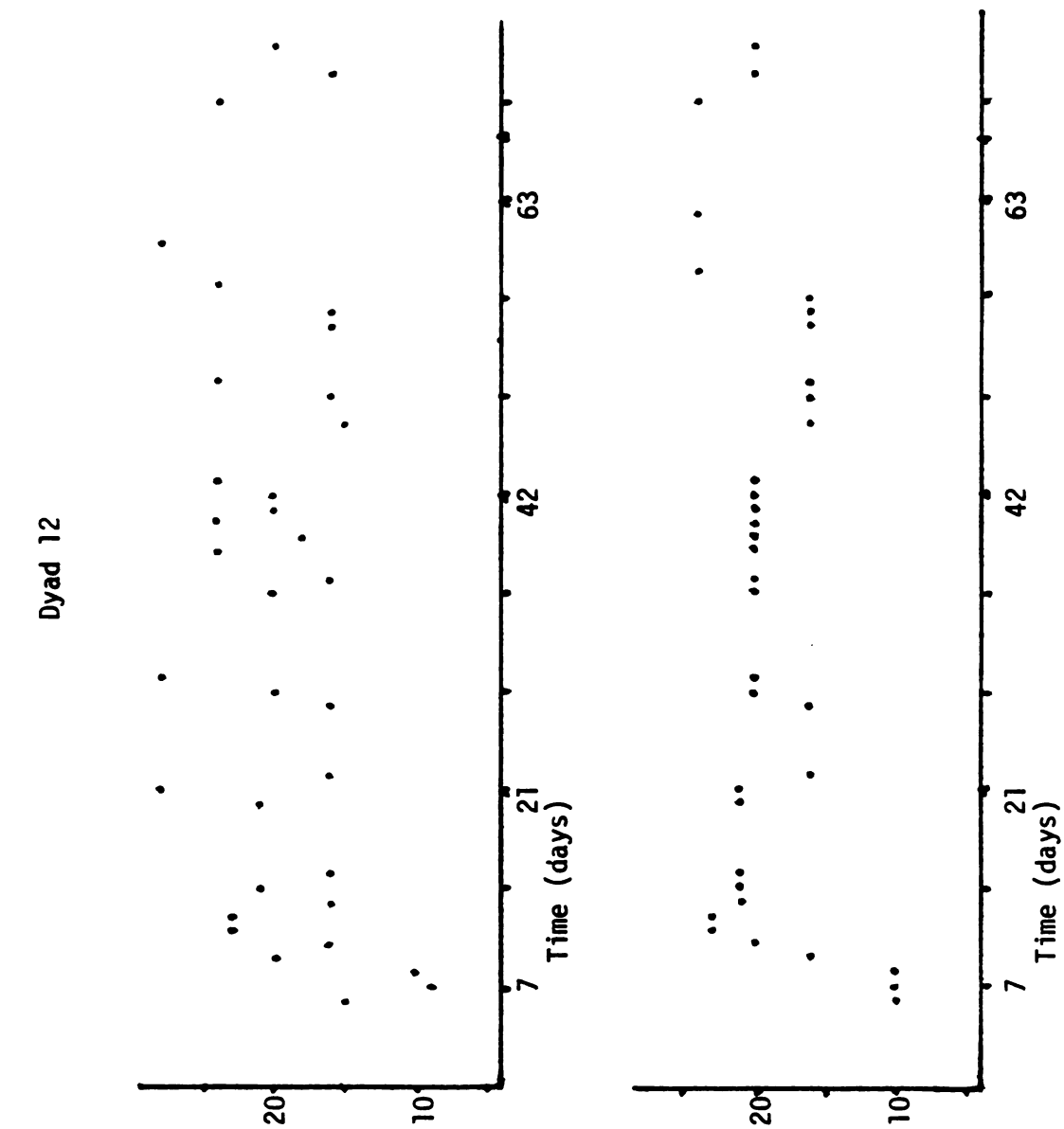

Dyad 12
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 7

Figure 7

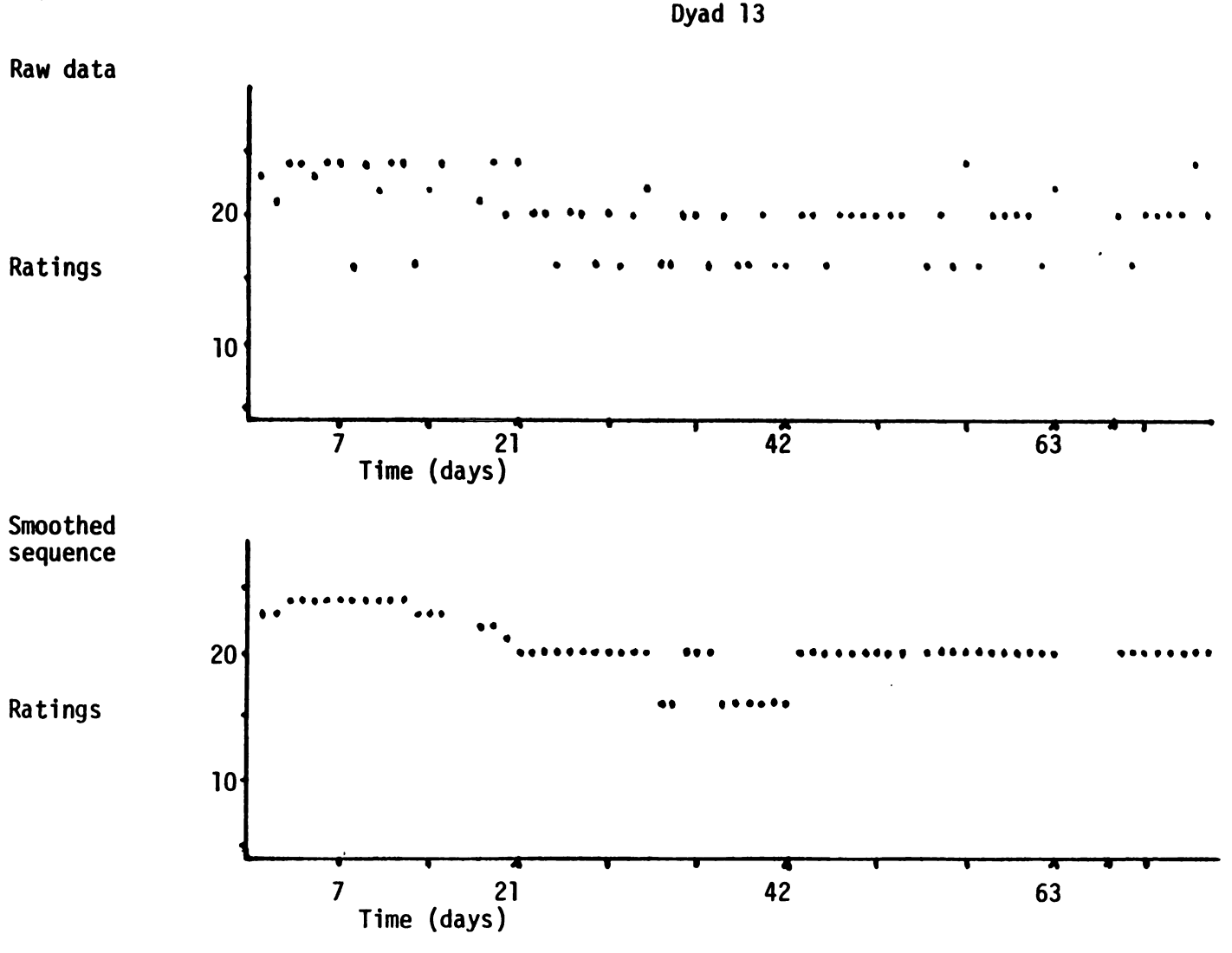

Dyad 13
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequence
Ratings
20
10
7
21
42
63
Time (days)

Figure 8. Weekly mean ratings of serious and relational discussions by weeks of fall quarter, 1980 at Michigan State University for each of 13 dyads.

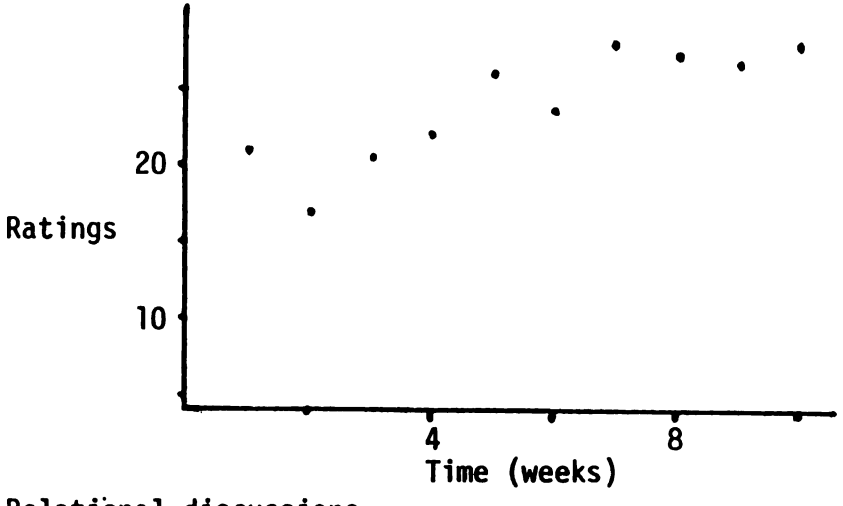
Figure 8

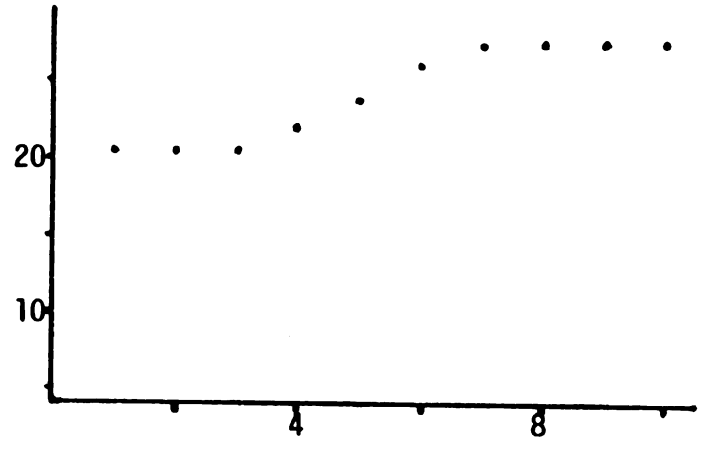
Dyad 1

Raw data

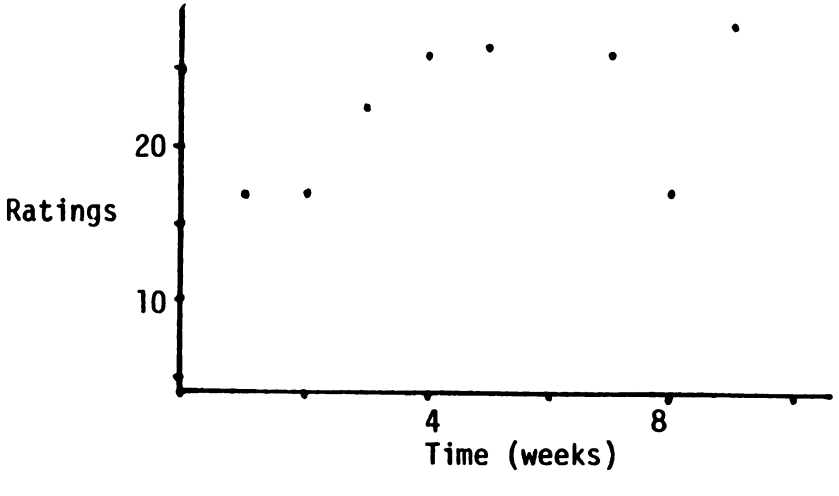
Smoothed sequences

Serious discussions





Relational discussions



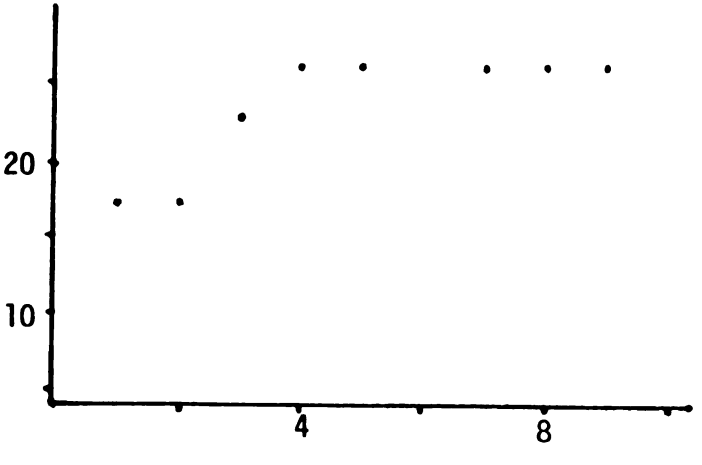


Figure 8

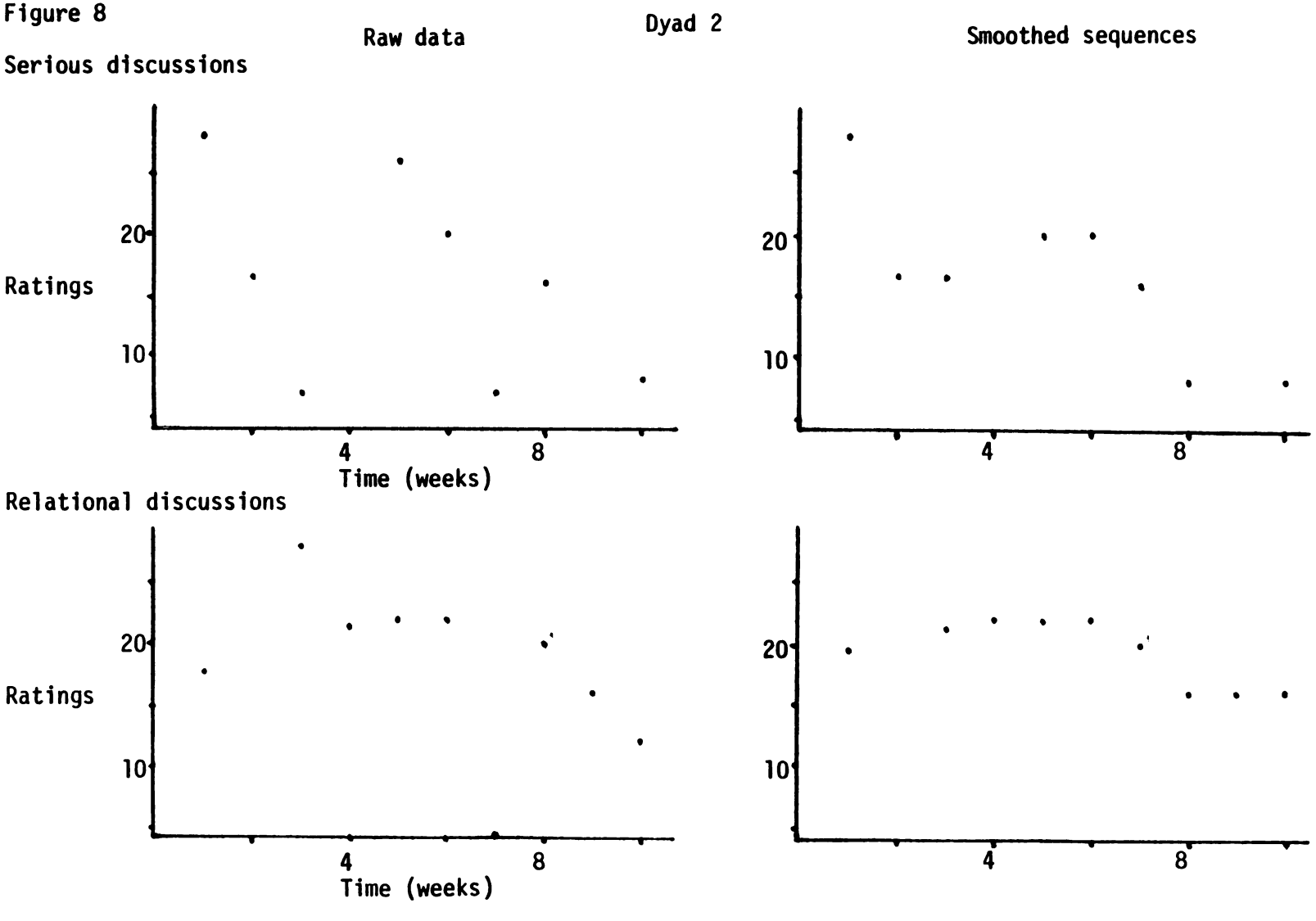

Raw data
Dyad 2
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Figure 8

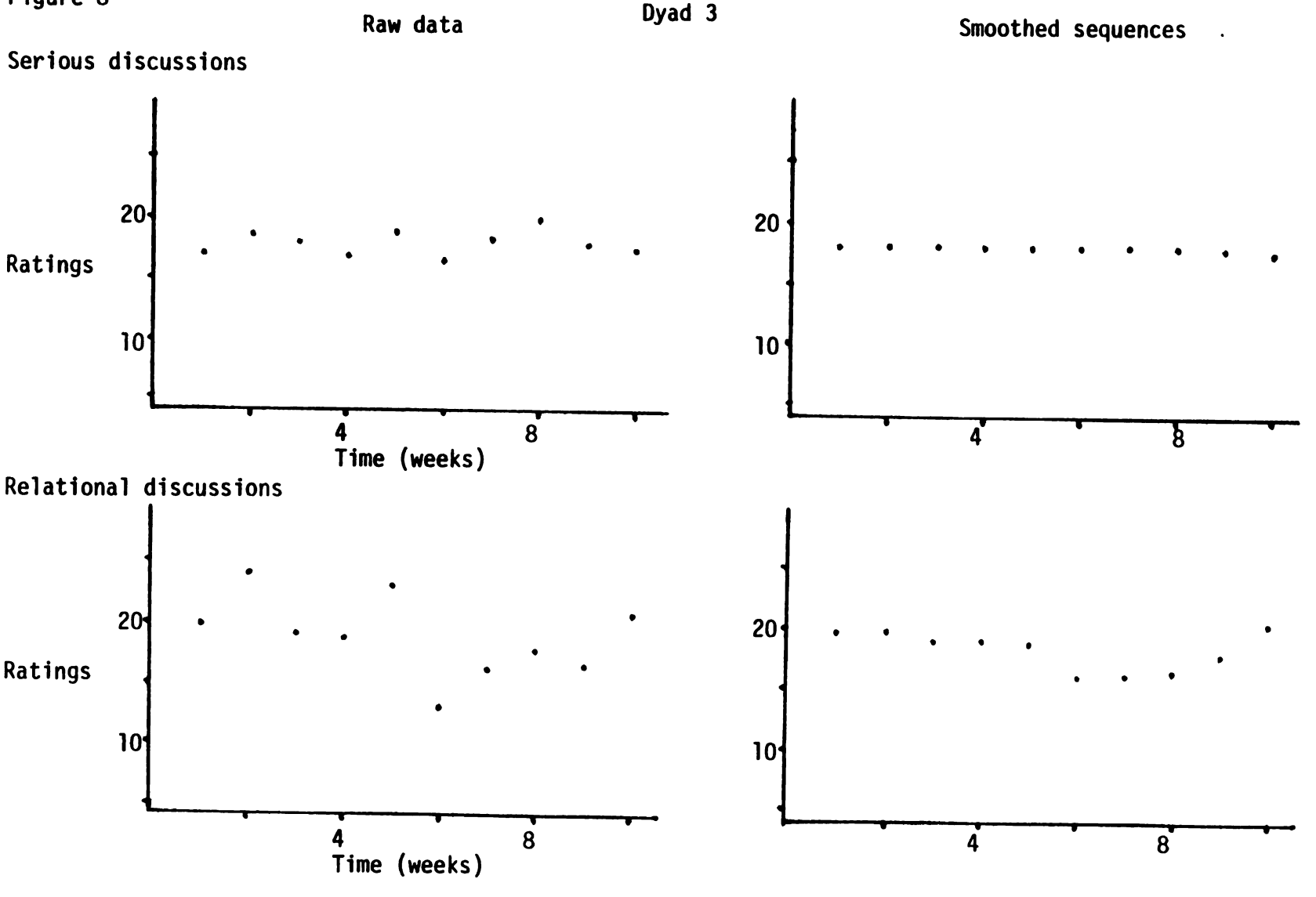
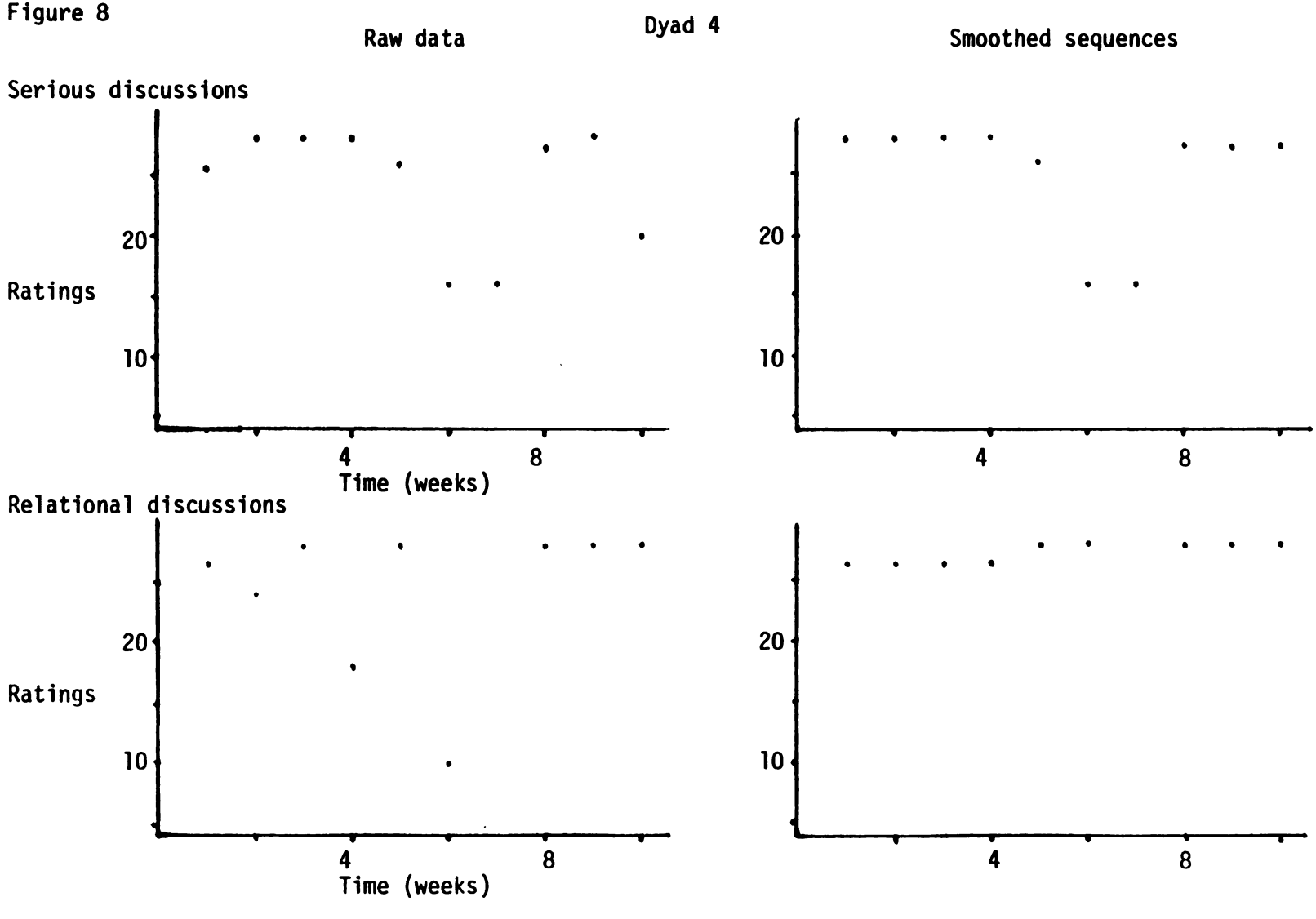

Raw data
Dyad 3
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Figure 8


Dyad 4
Raw data
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

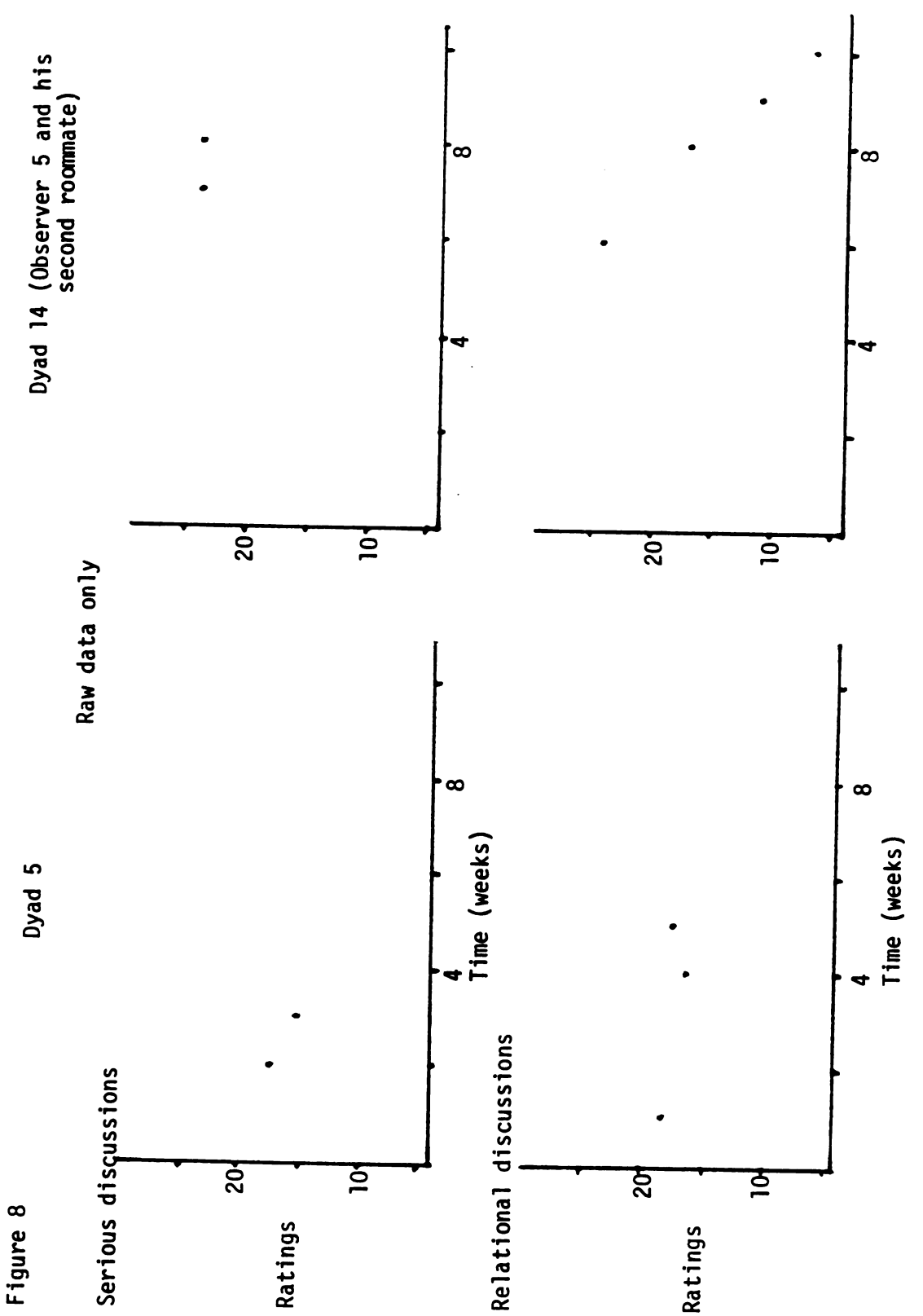

Dyad 14 (Observer 5 and his second roommate)
Raw data only
Dyad 5
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Figure 8

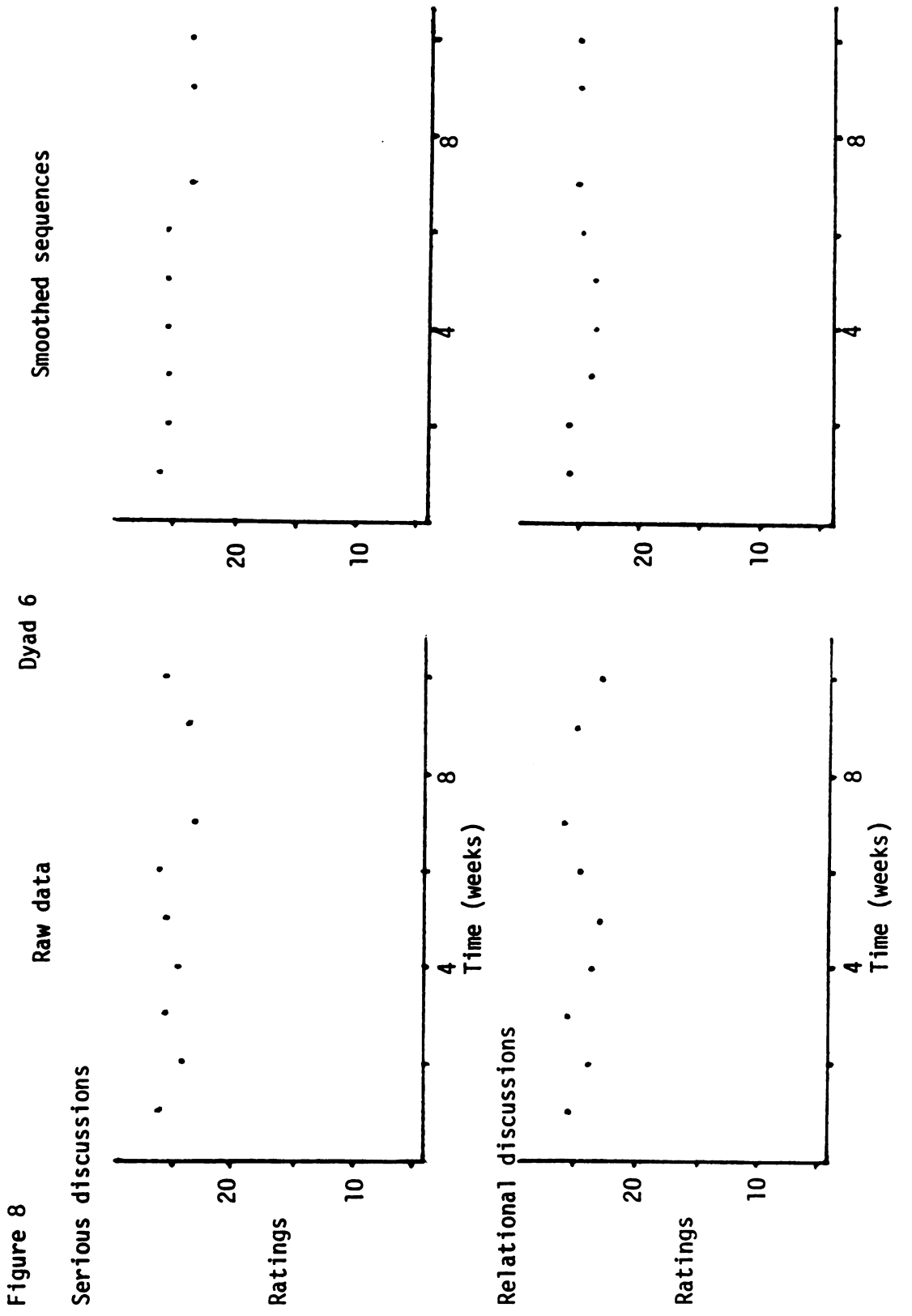
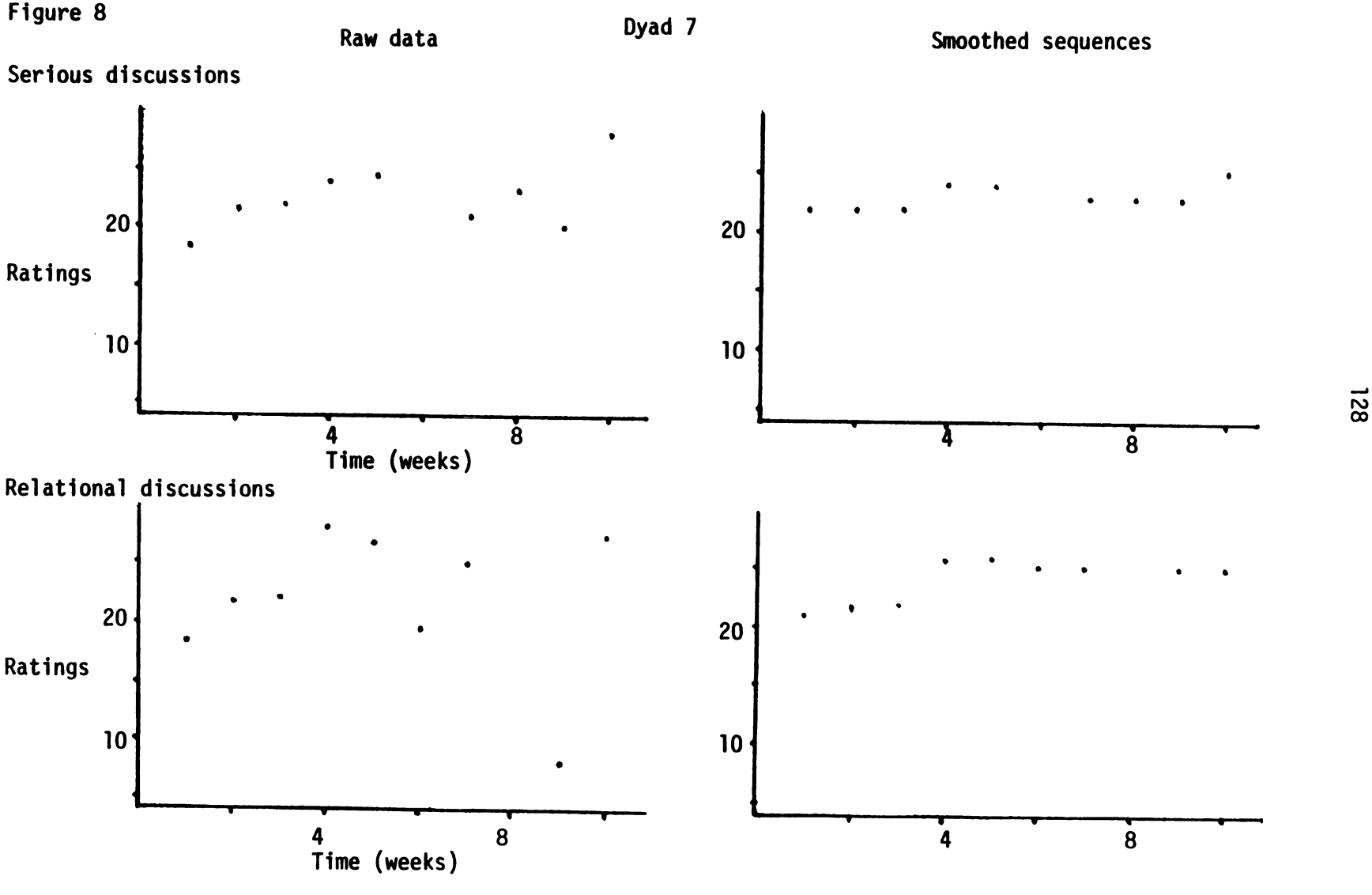


Figure 8
Dyad 6
Raw data
Smoothed sequences
Serious discussions
Relational discussions
Ratings
Time (weeks)
20
10
4
8

Figure 8


Dyad 7
Raw data
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

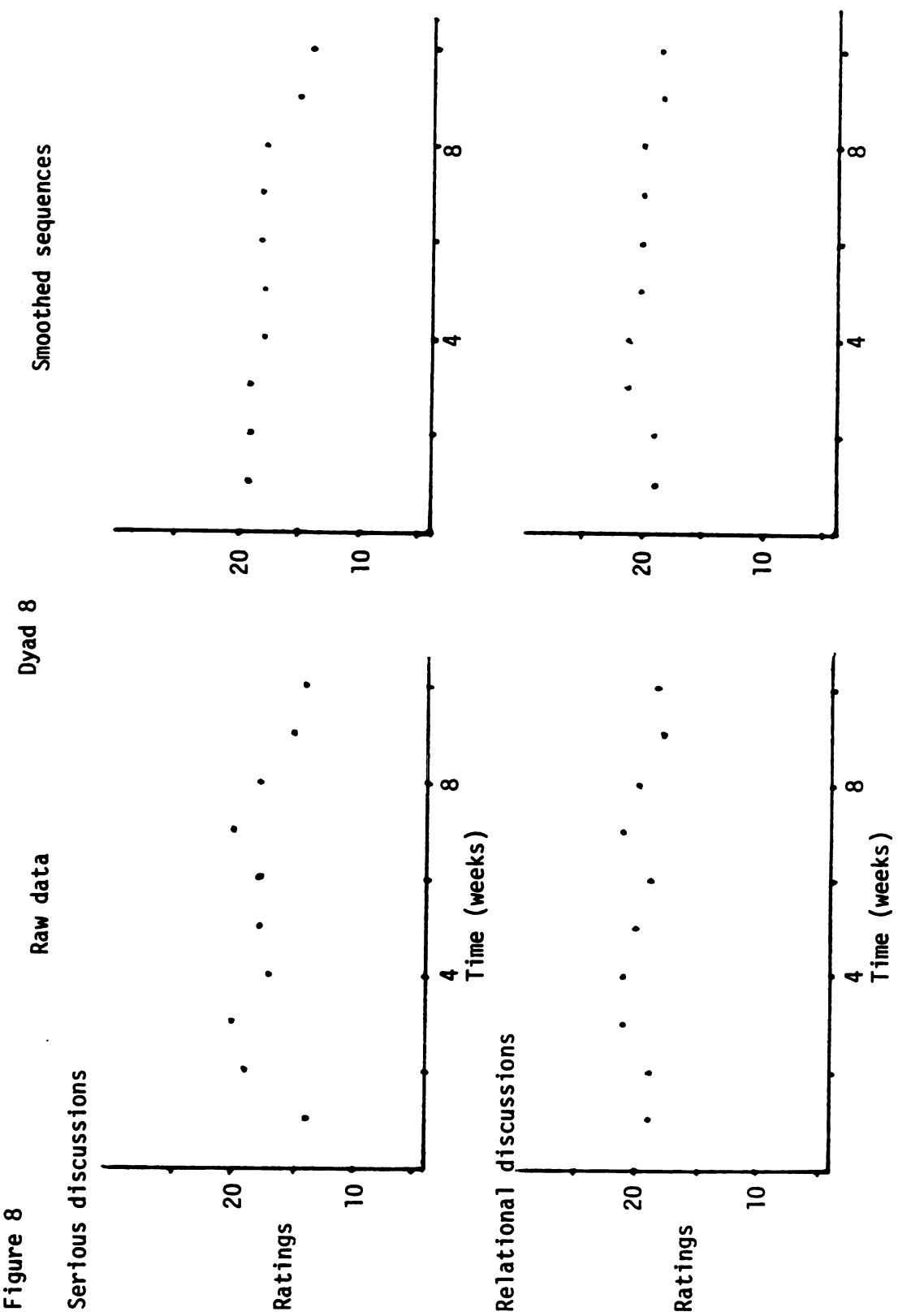


Figure 8
Dyad 8
Raw data
Smoothed sequences
Serious discussions
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Figure 8

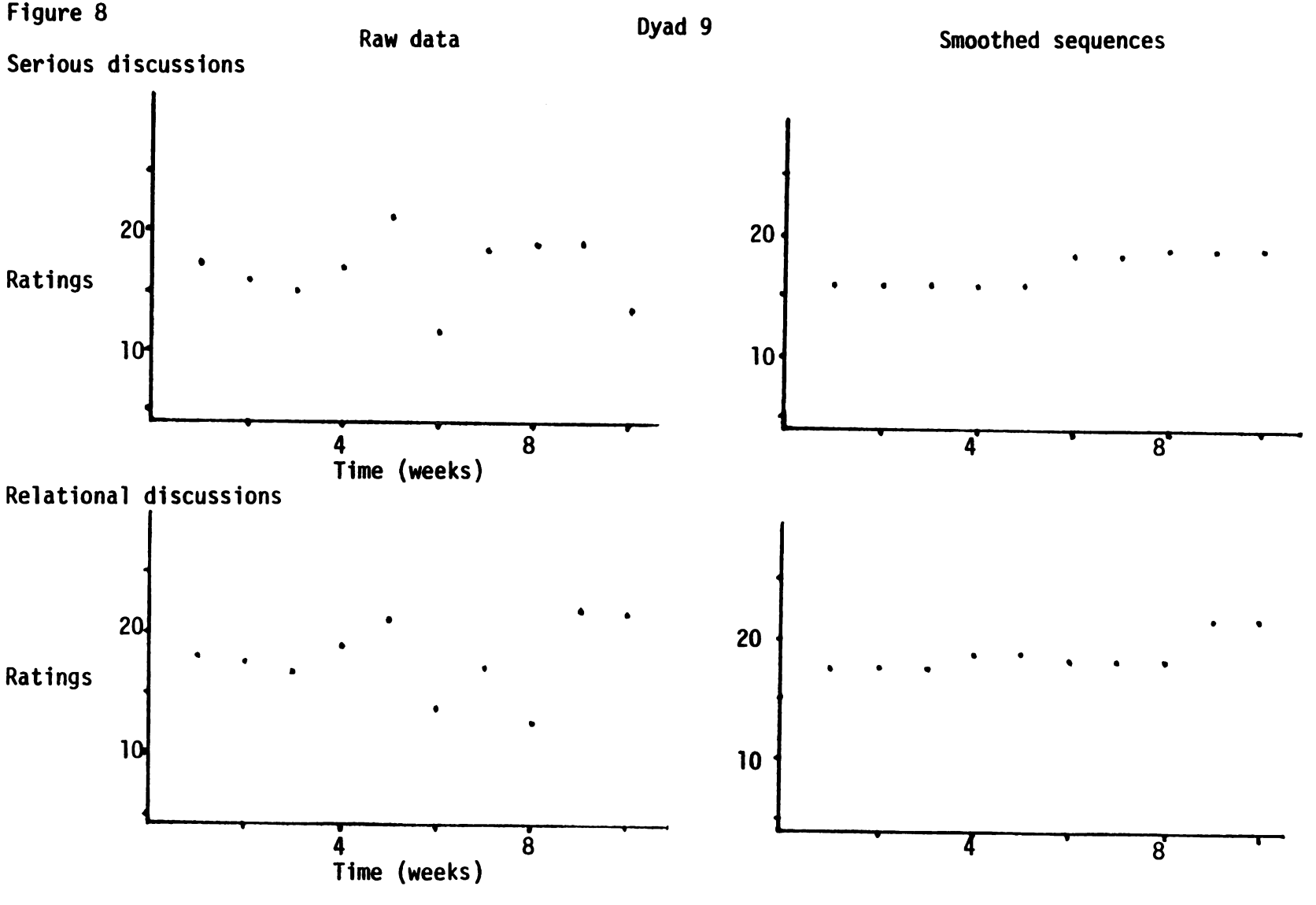
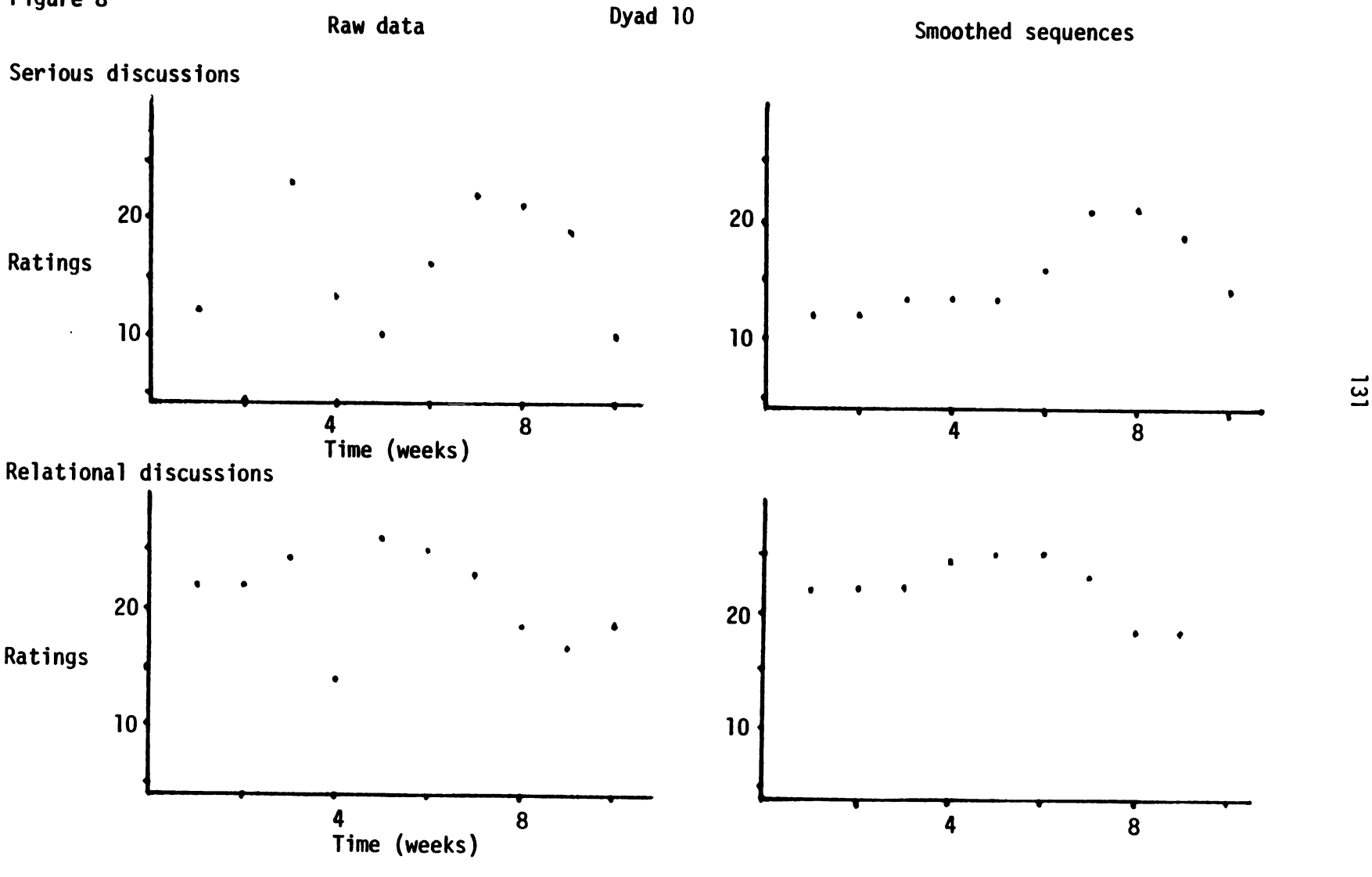

Raw data
Dyad 9
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Figure 8


Raw data
Dyad 10
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

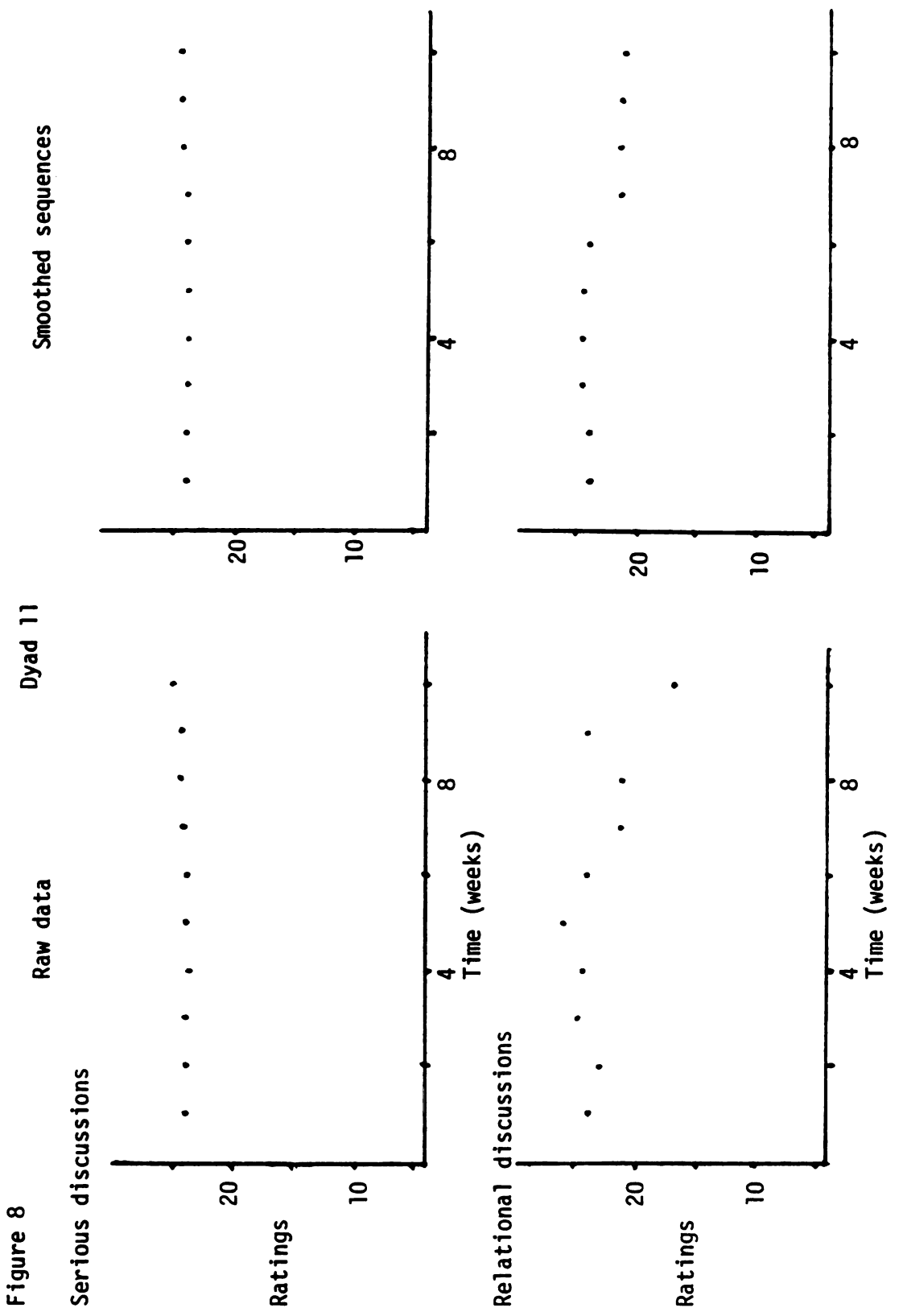


Figure 8
Dyad 11
Raw data
Smoothed sequences
Serious discussions
Relational discussions
Ratings
Time (weeks)
20
10
4
8

Figure 8

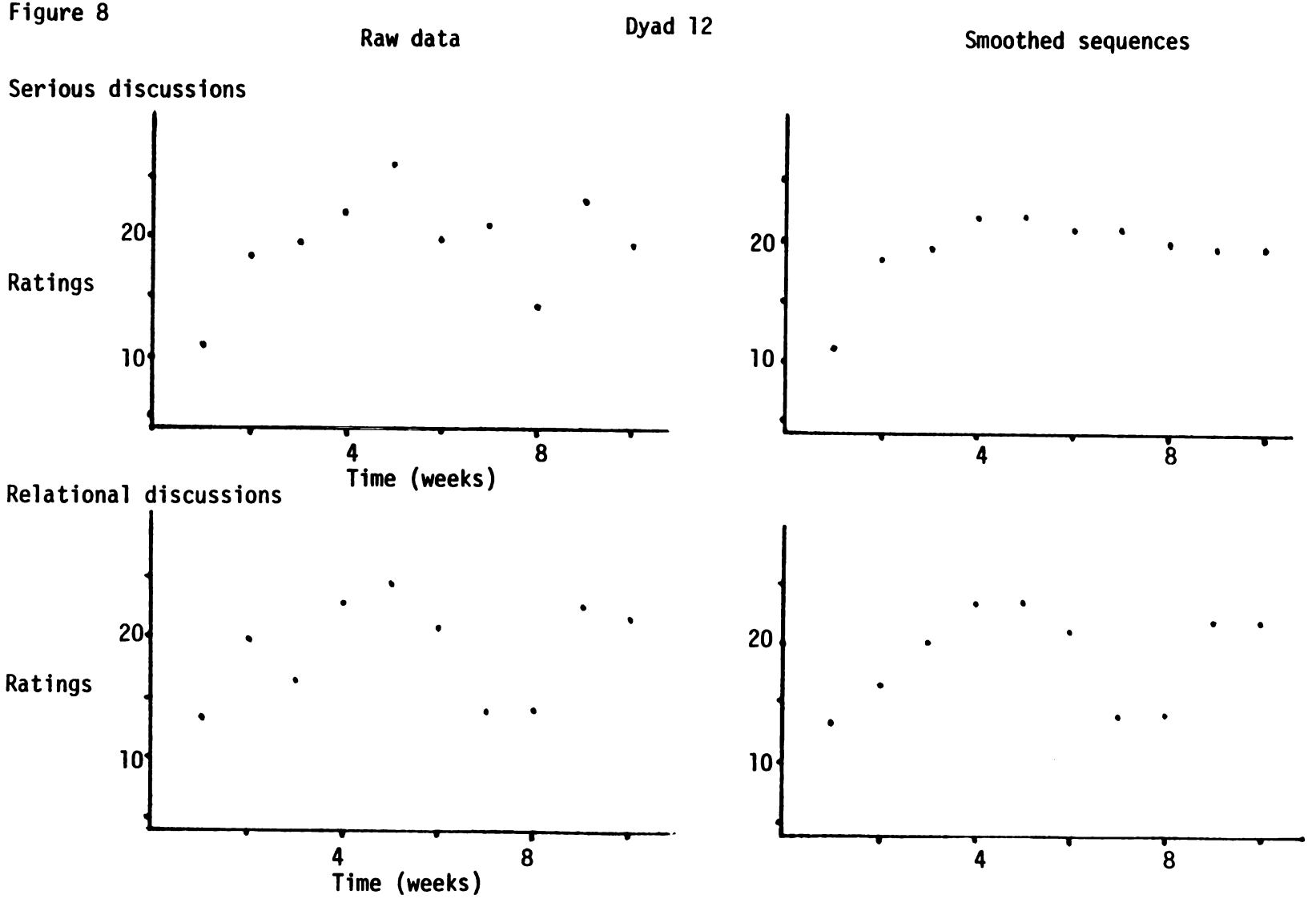

Raw data
Dyad 12
Smoothed sequences
Serious discussions
Ratings
20
10
4
8
Time (weeks)
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Figure 8

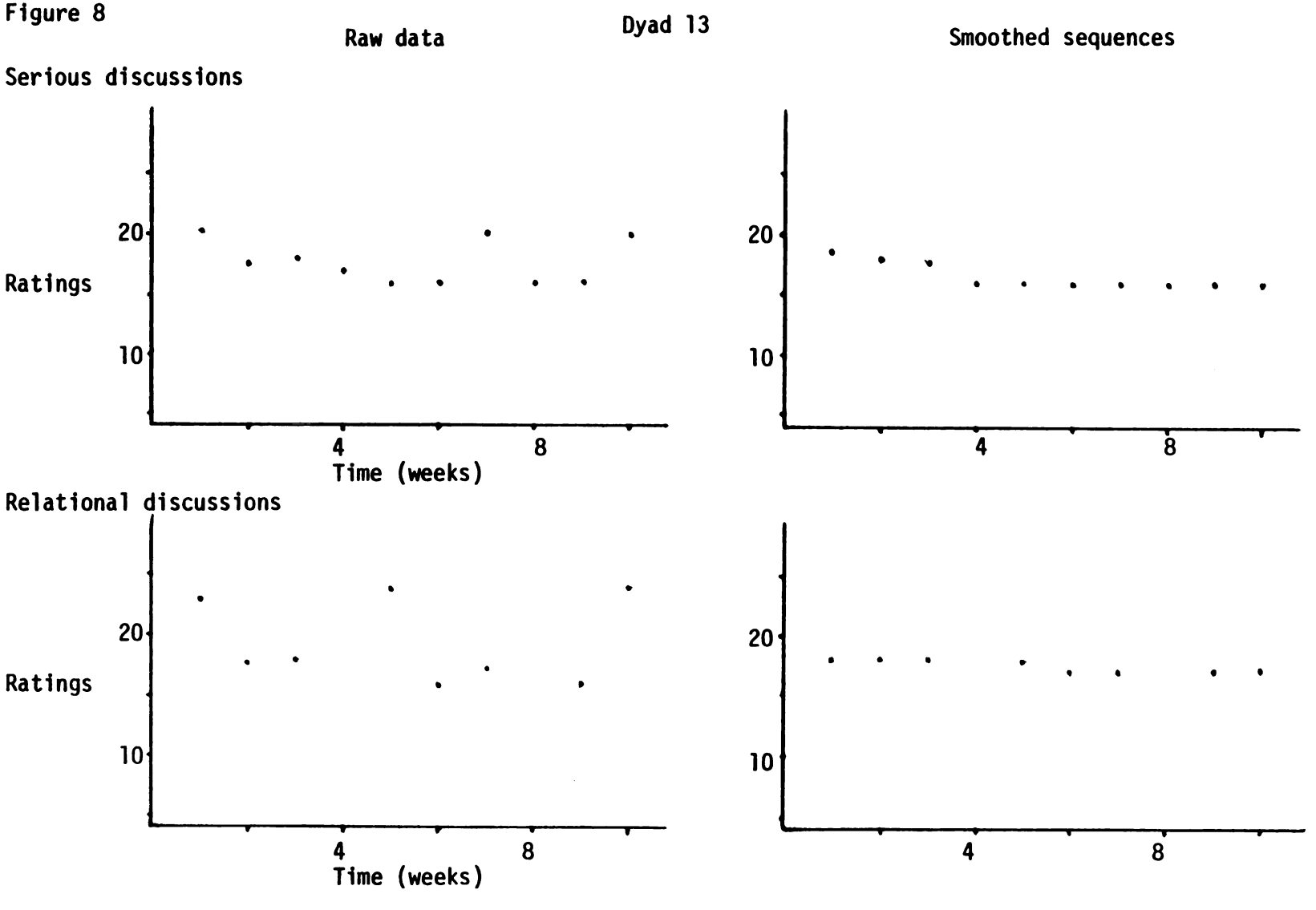

Dyad 13
Raw data
Smoothed sequences
Serious discussions
Relational discussions
Ratings
20
10
4
8
Time (weeks)

Table 10. Means and standard deviations of daily ratings of the total relationship and of three types of interaction between roommates (n = 12 dyads) at Michigan State University during four periods of fall quarter, 1980.

Period	n	M	SD
	Total relationship*		
1[a]	212	21.51	4.57
2[b]	213	21.40	4.85
3[c]	203	20.32	5.71
4[d]	78	22.18	5.46
	Casual conversation[e]		
1	208	22.09	4.10
2	198	21.97	4.65
3	188	21.35	4.71
4	70	22.10	5.07
	Serious discussion[f]		
1	135	20.16	5.25
2	129	20.08	5.46
3	115	20.70	5.20
4	49	19.51	6.71
	Relational discussion[g]		
1	127	21.08	4.57
2	94	21.11	5.82
3	86	18.99	6.75
4	37	21.57	5.38

[a]Weeks 1-3
[b]Weeks 4-6
[c]Weeks 7-9
[d]Post-Thanksgiving
[e]$\chi_r^2 = 3.90$, $df = 3$
[f]$\chi_r^2 = .925$, $df = 3$
[g]$\chi_r^2 = -8.22$, $df = 3$
*Friedman $\chi_r^2 = 6.27$, $df = 3$, $p<.1$

rating with significant differences was satisfaction with the total relationship. The ratings of the total relationship dropped from Period 1 to Period 3, then rose in Period 4, which had the highest mean rating of any period.

Research Question 6: How do previously acquainted roommates' communication patterns and satisfaction ratings differ from those of previously unacquainted roommates?

Previous acquaintance was determined from essays the participant observers wrote as a class assignment very early in the quarter, in which they described their first meetings with their roommates. Those who had known their roommates so long that they felt they could not remember their first meetings could describe their first encounter with their roommates after learning that they would be roommates, including a brief summary of their relational history. The essays were categorized dichotomously on the basis of whether the first meeting occurred before or after the pair became roommates. Seven dyads, one male and six female,were classified as previously unacquainted. Five dyads, one male and four female, were previously acquainted.

Examination of the exploratory graphs of satisfaction and interaction variables shows no consistency in pattern within groups or differences between groups. The Mann-Whitney U test was used to test for differences between the previously acquainted and previously unacquainted groups of roommates. This test uses ranks to test whether two groups have been drawn from the same population, and is a nonparametric alternative to the t test. The calculation procedures and formula for the test statistic are provided by Siegel (1956).

Mann-Whitney U's were calculated for differences in satisfaction ratings of the total relationship, time spent interacting, time spent in casual conversation as a fraction of time spent interacting (TC/TI), time spent in serious discussions as a fraction of time spent interacting (TS/TI), time spent in relational discussions as a fraction of time interacting (TR/TI), time spent interacting as a fraction of time together (TI/TT) and each of the four comparison topic categories. Group means for these variables and test statistics for the comparisons are shown in Table 11. Only two of the tests showed significant differences, TC/TI and TS/TI. Previously unacquainted roommates spent a smaller proportion of their time in serious discussions and a larger proportion of the time they spent interacting in casual conversation than did previously acquainted roommates.

Research Question 7: How did communication patterns and satisfaction ratings of high-involvement relationships differ from those of low-involvement relationships?

Involvement was defined as the degree to which the dyad shared activities and had serious discussions. High- and low-involvement groups were formed by rank ordering the frequencies of topic number 33, shared activities, and the frequencies of serious discussions for the entire sample. Each dyad's two ranks were summed, and the sums were re-ranked. Ties were broken and the median-ranked dyad assigned on the basis of the number of shared activities mentioned in daily log sheets under "efforts to be with" or "other observations."

Examination of the exploratory graphs shows no consistent pattern based on high versus low involvement. The values of the estimates of

Table 11. Group means of study variables and Mann-Whitney tests for differences between previously acquainted and previously unacquainted roommate dyads at Michigan State University, fall quarter, 1980.

Variable	Acquainted (n)	Unacquainted (n)	U
Satisfaction with Relationship	21.69 (5)	20.79 (7)	13
Time Interacting (hours)	2.35 (5)	2.24 (6)	14
$\frac{\text{Time Casual}}{\text{Time Interacting}}$	.541 (5)	.787 (6)	7*
$\frac{\text{Time Serious}}{\text{Time Interacting}}$	.305 (5)	.106 (6)	6*
$\frac{\text{Time Relational}}{\text{Time Interacting}}$	.148 (5)	.103 (6)	14
$\frac{\text{Time Interacting}}{\text{Time Together}}$	.540 (5)	.468 (6)	11
Frequency of			
External Topics	68.86 (5)	68.80 (7)	18
Personal Topics	267.00 (5)	213.86 (7)	16
Shared Topics	48.80 (5)	34.71 (7)	15
Relational Topics	50.20 (5)	45.86 (7)	17

*$p < .1$

time spent in communicating do seem somewhat higher for the high-involvement group, though.

The Mann-Whitney U test was used to compare total - relationship satisfaction ratings, time spent interacting, time spent in casual conversations as a fraction of time interacting, time spent interacting as a fraction of time together, and frequencies of external, personal, and relational content categories for the two groups. The shared category frequencies were not tested because one of the major subcategories, shared activities, was used to form the high- and low-involvement groups. Group means and test statistics are shown in Table 12. Roommates in high-involvement relationships were shown to spend more time talking to each other than roommates in low-involvement relationships. Similarly, roommates in high-involvement relationships discussed topics in each of the categories tested, external, personal, and relational, more often than did roommates in low-involvement relationships.

Research Question 8. How do communication patterns of relatively satisfactory relationships differ from those of relatively unsatisfactory relationships?

Satisfaction was measured on the basis of each participant's mean rating of satisfaction with the total relationship, which were rank ordered and divided into high-, medium-, and low-satisfaction groups. There were four dyads each in the low and high groups and five dyads in the middle group.

The Kruskal-Wallis one-way analysis of variance by ranks, a non-parametric technique which tests the null hypothesis that the samples or groups come from the same population, was used to test for differences among the high-, medium-, and low-satisfaction groups in time

Table 12. Group means of study variables and Mann-Whitney tests for differences between low- and high-involvement roommate dyads at Michigan State University, fall quarter, 1980.

Variable	Involvement		U
	Low n	High n	
Satisfaction with Relationship	20.64 (6)	21.24 (7)	19
Time Interacting (hours)	1.04 (6)	3.17 (6)	4*
Time Casual / Time Interacting	.623 (6)	.710 (6)	12
Time Relational / Time Interacting	.181 (6)	.071 (6)	5*
Time Interacting / Time Together	.383 (6)	.545 (6)	10
Frequency of External Topics	29.50 (7)	93.29 (6)	3**
Personal Topics	106.75 (7)	316.28 (6)	0**
Relational Topics	29.50 (7)	60.14 (6)	2**

*$p<.1$

**$p<.05$

spent interacting, time spent in casual conversation as a fraction of time spent interacting, time spent in serious discussion as a fraction of time spent interacting, time spent in relational discussion as a fraction of time spent interacting, time spent interacting as a fraction of time together, and each of the four comparison topic categories. The Kruskal-Wallis test is a nonparametric analogy to a one-way analysis of variance based on ranks. Calculation procedures and the formula for the test statistic, H, are given by Siegel, (1956). Group means and test results are shown in Table 13.

Time spent interacting was shown to be highest in the medium-satisfaction group, moderate in the high-satisfaction group, and lowest in the low-satisfaction group. Time spent in casual conversation as a fraction of time interacting was highest in the moderate-satisfaction group and quite similar in the high and low groups, though representing much more actual time for the high-satisfaction group since they spent more time interacting. Time spent in serious discussion as a fraction of time interacting was highest for high-satisfaction relationships, moderate for low-satisfaction relationships, and lowest for medium-satisfaction relationships. Time spent in relational discussion as a fraction of time spent interacting was highest in low-satisfaction relationships, moderate in high-satisfaction relationships, and lowest in medium-satisfaction relationships. None of the other tests showed significant differences.

Clear differences in communication patterns emerge only when satisfaction is considered along with involvement. When dyads are cross-classified by both variables, four distinct types of relationships emerge--high involvement-high satisfaction, low involvement-high

Table 13. Group means of study variables and Kruskal-Wallis tests for differences among low-, medium-, and high-satisfaction roommate dyads at Michigan State University, fall quarter, 1980.

Variable	Satisfaction			H
	Low (n)	Medium (n)	High (n)	
TI[a]	.62 (4)	3.51 (4)	2.19 (4)	6.00*
TC/TI[b]	.567 (4)	.874 (4)	.559 (4)	6.51*
TS/TI[c]	.182 (4)	.076 (4)	.328 (4)	6.61*
TR/TI[d]	.219 (4)	.049 (4)	.112 (4)	7.65**
TI/TT[e]	.307 (4)	.545 (4)	.538 (4)	3.58
Frequency of				
External Topics	31.2 (4)	80.0 (5)	76.2 (4)	2.43
Personal Topics	138.0 (4)	279.4 (5)	228.2 (4)	3.04
Shared Topics	30.2 (4)	42.4 (5)	41.0 (4)	.81
Relational Topics	45.5 (4)	48.6 (5)	43.25 (4)	1.85

[a]Time Interacting (hours)

[b]Time Casual/Time Interacting

[c]Time Serious/Time Interacting

[d]Time Relational/Time Interacting

[e]Time Interacting/Time Together

*$p < .049$

**$p = .008$

satisfaction, high involvement-medium satisfaction, and low involvement-low satisfaction--along with two borderline cases. The classification of dyads by involvement, satisfaction, and prior acquaintance is shown in Table 14.

Table 14. Cross-Classification of relationships between roommate dyads at Michigan State University, fall quarter, 1980.

Previous Acquaintance	Satisfaction		
	High	Medium	Low
	High involvement		
Acquainted	6[a], 11	7	
Unacquainted		8, 3, 13, (9)[b]	(9)
	Low involvement		
Acquainted	10		12
Unacquainted	1, (4)	(4)	5, 2

[a]Dyad identification number

[b]Parentheses indicate a borderline dyad

High involvement-high satisfaction relationships show high, fairly level satisfaction ratings over time as shown in the group graphs of Figure 9. They have descending patterns of relational communication in terms of the amount of time they spend in relational communication, if not frequency. Both relationships involved previously acquainted roommates who shared several interests and activities. Each pair of roommates had a shared religious affiliation, and one pair was involved in a student religious organization.

Figure 9. Daily ratings of the total relationship of the high-involvement-high-satisfaction group by days of fall quarter, 1980 at Michigan State University.

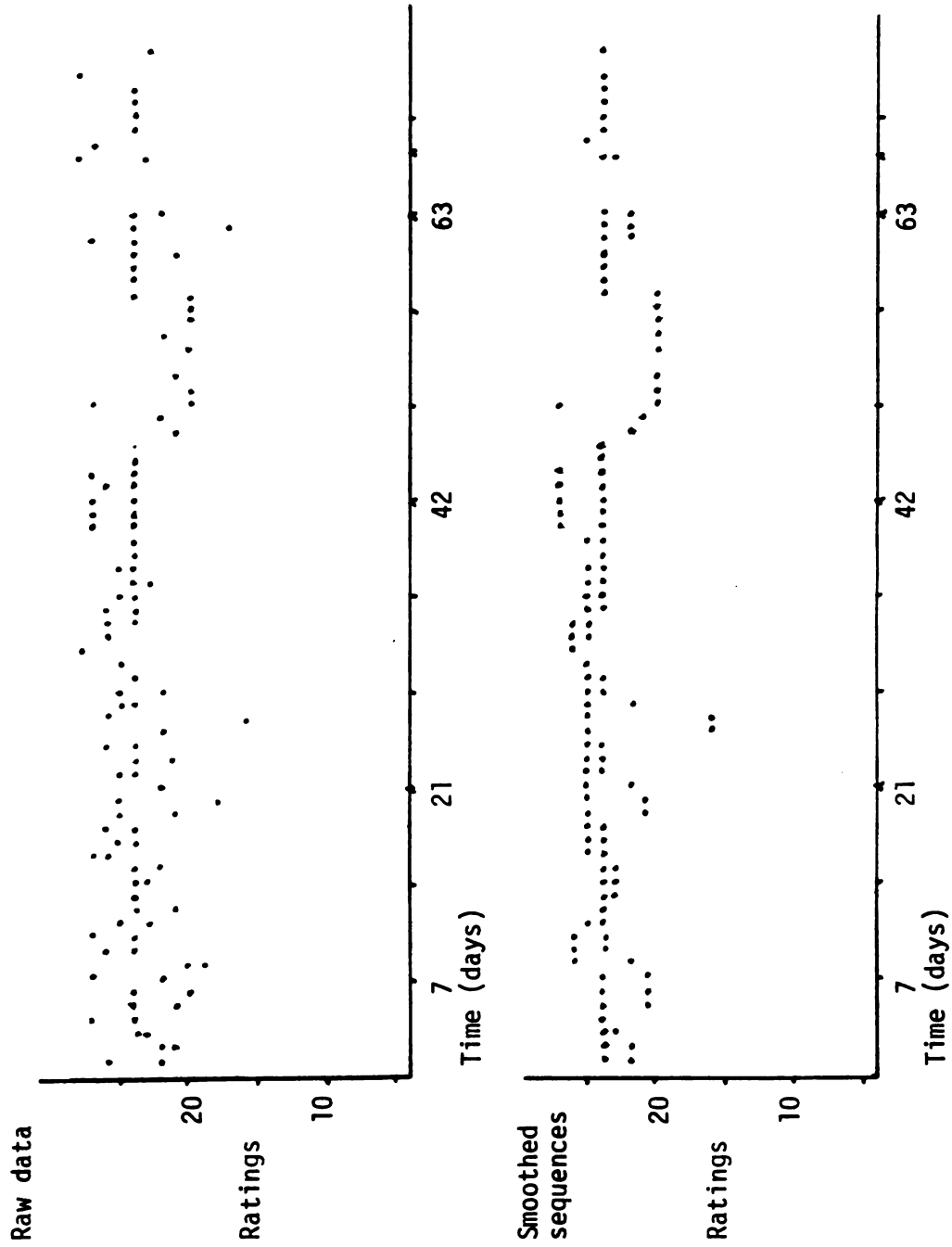

Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequences
Ratings
20
10
7
21
42
63
Time (days)

Figure 9

Low involvement-high satisfaction relationships had much lower levels of interaction, but show a similar mix of conversation types. Overall, the high-satisfaction relationships spent about 56% of their interaction time in casual conversation, 33% in serious discussions, and 11% in relational discussions. Low involvement-high satisfaction relationships include previously acquainted and previously unacquainted dyads. In the previously unacquainted case, there was an ascending pattern of serious discussions. Relational discussions descended overall. The pattern of casual conversation was basically level with some concavity. Figure 10 shows group graphs of satisfaction ratings of the total relationship.

Roommates in high satisfaction relationships were among the older participants (mean age = 20.12) and were also further along in school (mean class level was second-quarter sophomore).

High involvement-medium satisfaction relationships were the most volatile, showing considerable day-to-day variation and predominantly fluctuating or bimodal patterns over time. For example, Figure 11 shows the grouped satisfaction ratings over time. This group shows something of a descending pattern of relational discussions, but not as clearly as the high-satisfaction relationships.

The interaction of the high involvement-medium satisfaction group roommates could be characterized as broad but shallow. They spent large amounts of time together, the most of any group, a very high proportion of which was casual conversations and very little of which was serious discussions.

All of the high involvement-medium satisfaction dyads were female. All but one (4) were pairs of 18-year-old freshmen. One dyad (7) was

Figure 10. Daily ratings of the total relationship of the low-involvement-high-satisfaction group by days of fall quarter 1980 at Michigan State University.

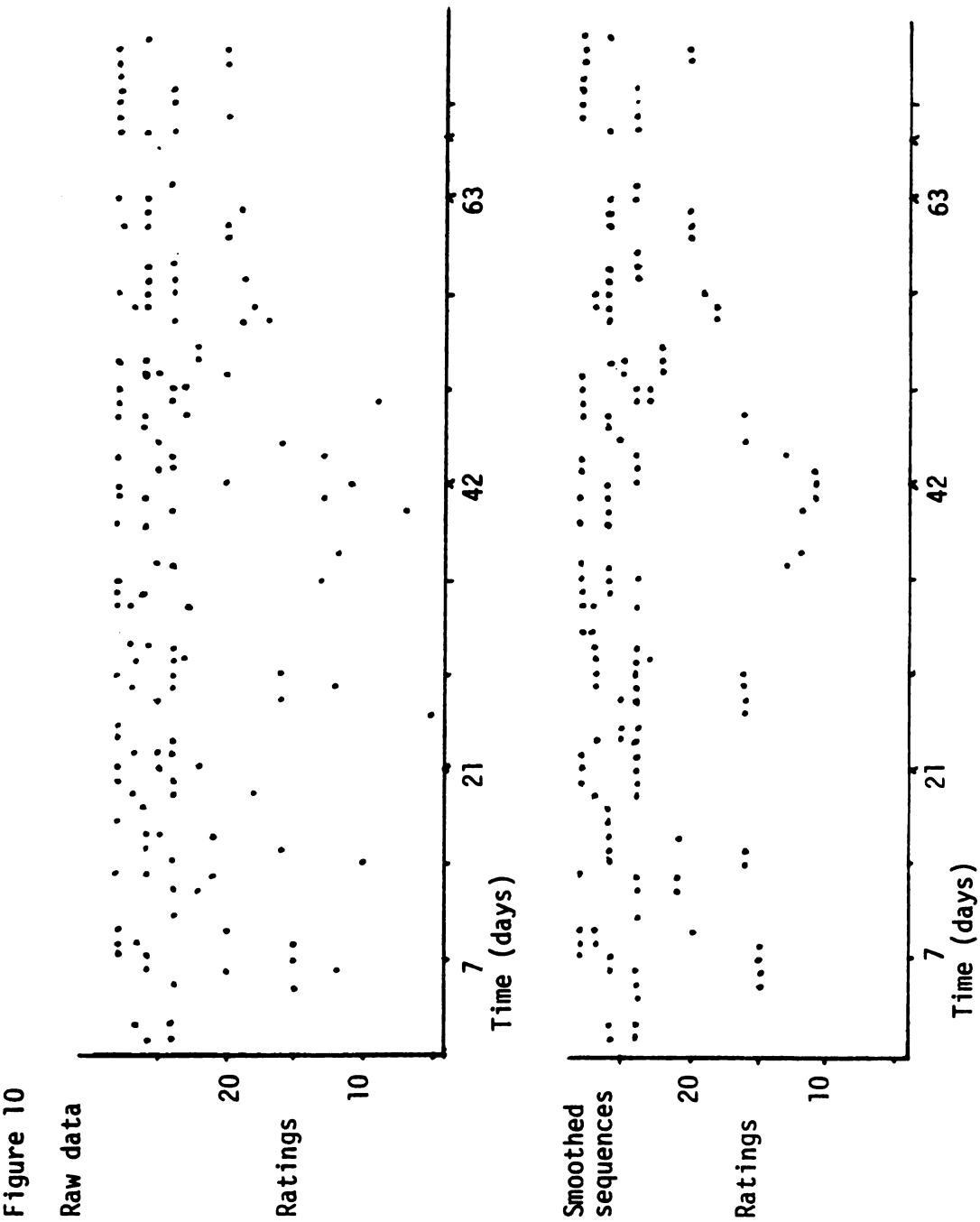

Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequences
Ratings
20
10
7
21
42
63
Time (days)

Figure 10

Figure 11. Daily ratings of the total relationship of the high-involvement-medium-satisfaction group by days of fall quarter, 1980 at Michigan State University.

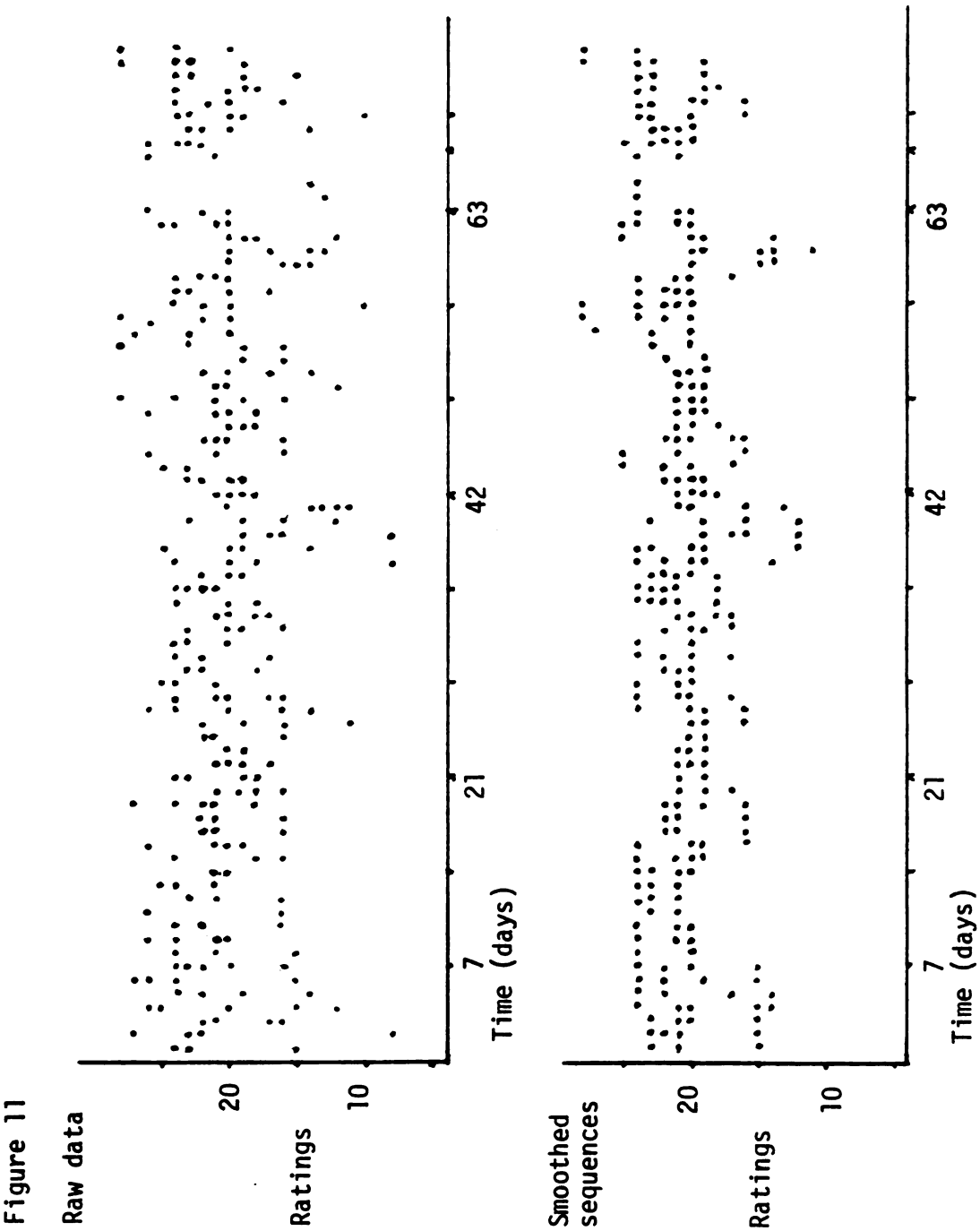

Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequences
Ratings
20
10
7
21
42
63
Time (days)

Figure 11

previously acquainted, but had been separated during their senior year of high school due to one student's family moving overseas. All the rest were previously unacquainted. Dyad 7 was also the only pair in this group to have a double room for the entire quarter. All the rest were "tripled," which means that three students share a regular double-sized dorm room, for at least part of the quarter. Overall these dyads seem to have been fairly highly stressed.

The low-involvement-low-satisfaction relationships spent extremely small amounts of time interacting, high proportions of which are relational. Their satisfaction ratings fluctuate or show a generally descending pattern over time, as shown in Figure 12.

All of the dyads in this group split up as roommates either during the quarter or between fall and winter quarters. Each of them shows a different profile of partners and relational history.

Participant observer 12 and her roommate had low levels of interaction throughout the quarter. Both roommates were away from campus frequently; there were only three weekends when both were on campus before finals. A rather high proportion of their interaction was relational. The dyad were a sophomore and junior and were previously acquainted. Participant observer 12 mentions differences between the two in habits and preferences, but not many conflicts. However, these conflicts may have loomed quite large given the low level of interaction. She expressed liking for her roommate and the hope that they would be friends, perhaps better friends, after she moved to other housing.

Participant observer 5 and his roommate had extremely low levels of interaction as a pair, although they seem to have spent quite a lot

Figure 12. Daily ratings of the total relationship of the low-involvement-low-satisfaction group by days of fall quarter, 1980 at Michigan State University.

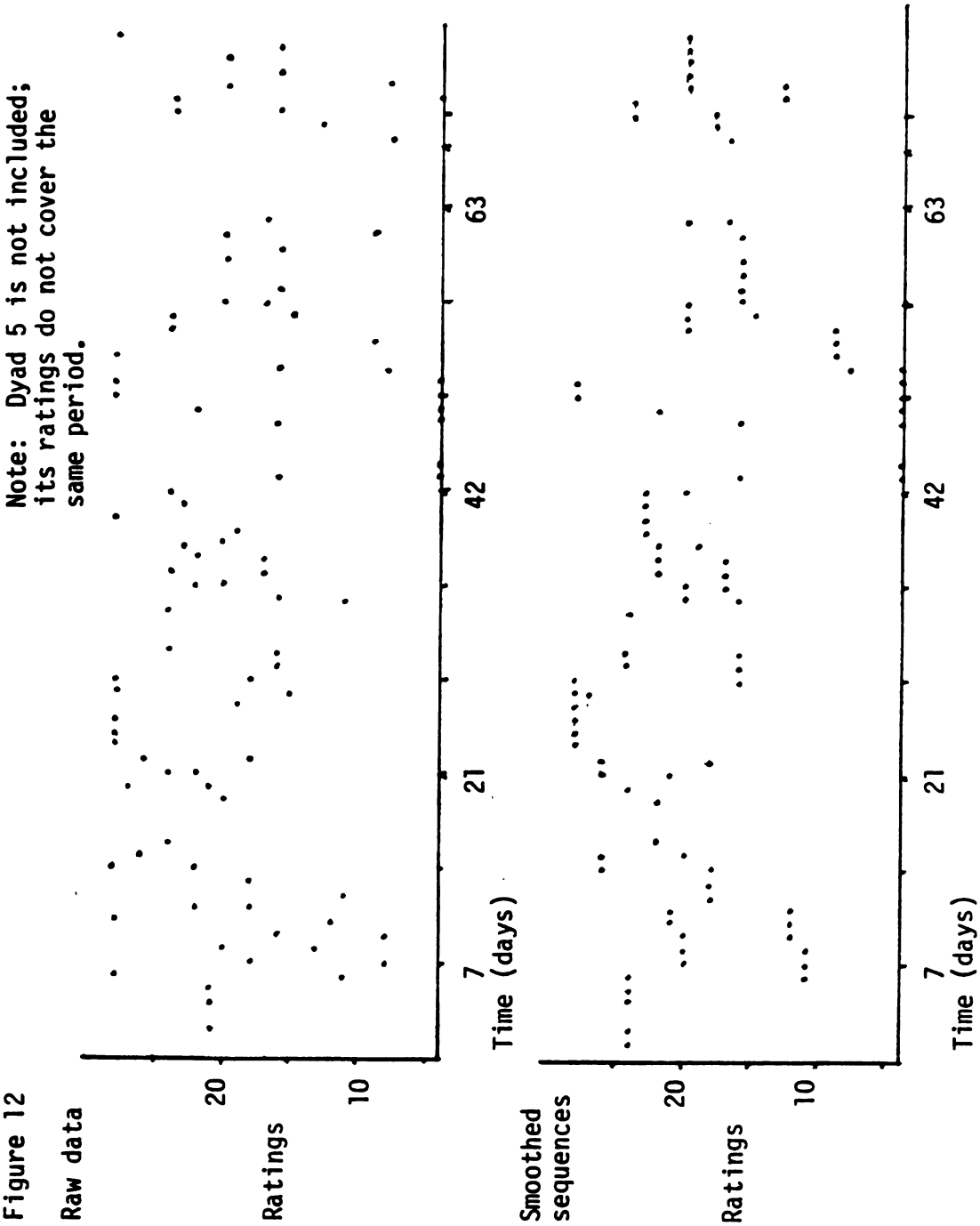

Note: Dyad 5 is not included; its ratings do not cover the same period.
Raw data
Ratings
20
10
7
21
42
63
Time (days)
Smoothed sequences
Ratings
20
10
7
21
42
63
Time (days)

Figure 12

of time together early in the quarter as part of a larger group of acquaintances. Relational discussions were a fairly high proportion of the interaction, but there was such a low level of interaction that this does not mean much. Participant observer 5 reports some minor conflicts, but was surprised when his roommate approached him about switching partners with another pair of roommates. Participant observer 5 had earlier expressed a desire for higher levels of interaction with his roommate and frustration that his attempts to bring this about were unsuccessful. He reports two relational discussions in which both roommates acknowledged dissatisfaction with the current state of their relationship, but neither had any concrete idea of how to improve it. Participant observer 5 interacted effectively with other students in the classroom setting, showing no discernible lack of communication skill or objectionable personal characteristics. It would seem that participant observer 5's roommate was bothered by something about him, though, which the roommate never discussed with him. Participant observer 5 was Jewish, from a fairly religiously conservative family background, while his roommate was non-Jewish, so ethnic and religious differences may have been a factor in the roommate's behavior.

Early in the quarter participant observer 2's relationship with her roommate strongly resembled the high-involvement-medium-satisfaction group in their interaction patterns. They fit the demographic profile of that group as well; they were unacquainted female freshmen. In the seventh week of the quarter the two had a conflict which became strongly person centered, and the relationship changed abruptly to a very low-involvement-low-interaction pattern. Participant observer 2's

statements about her roommate changed from generally positive to very negative at the time of the incident. After some time had passed following the incident participant observer 2's roommate behaved in specifically positive ways toward participant observer 2, which participant observer 2 interpreted as her roommate not understanding her feelings. Background differences between the two--one urban, one small-town; one blue-collar immigrant family, one an upper-middle class professional family--may have resulted in large enough differences in communication style that this could be the case, but it may also be that participant observer 2's roommate's behavior was conciliatory. In either case participant observer 2 ended the quarter expressing bitter feelings toward her roommate and definite plans to change rooms.

The mixture of these three low-satisfaction cases seems to indicate that low involvement may either precede or result from low satisfaction. Although differences in background characteristics of individuals may have been a factor in the failure of these relationships, pairs with the same kinds of differences can be found in the medium-satisfaction group.

Borderline dyad 9 is a relationship which very strongly resembles the medium-satisfaction-high-involvement relationships except for a slightly higher frequency of conflict and longer dips in satisfaction following conflict. These result in a slightly lower overall satisfaction rating. Participant observer 9's mean satisfaction rating is actually closer to the lowest rating in the medium-satisfaction group than to the next-highest rating in the low-satisfaction group.

Dyad 4 had the lowest satisfaction rating of the high-satisfaction group. The relationship clearly falls in the low-involvement group

with respect to shared activities, being ranked third-lowest, but was in the upper half of the sample with respect to serious discussions. This relationship had a fairly low level of interaction generally. However, participant observer 4 stated in her daily logs that she wanted a higher level of interaction with her roommate but could not spend as much time talking or doing things with her roommate as she wished because of the time needed for studying. Dyad 4 might be characterized as a compromise relationship or perhaps a frustrated high-involvement relationship. The roommates themselves resembled the high-satisfaction group, and were not previously acquainted. Since only one dyad with these characteristics was included in the sample, the question of whether it represents a fifth type of relationship or is a variant of the low-involvement/high-satisfaction class must be left open.

Other Observations

Several interesting phenomena were observed in the daily logs which are not covered by the research questions. These are for the most part serendipitous observations, and so may seem unconnected with the main focus of the research. Nonetheless the observed patterns are striking enough that they ought to be reported. Generally, these observations involve conflict between roommates. First, all but one of the dyads experienced some major conflict, whether overtly expressed in verbal form or not, during the quarter. The one exception had the highest average age and class standing of roommates of all the dyads, were previously acquainted, and spent rather little time together in the later, generally less satisfactory, weeks of the quarter.

Second, in about 40% of the reported conflict incidents the participant observers reported use of alcohol or other drugs by one or both roommates. There were no incidents of participant observers explicitly reporting use of drugs besides alcohol, but the terms used in several instances, e. g. "stoned" and "got high," may imply use of another drug, probably marijuana. Participant observers had been informed that although their logs were confidential they were probably not legally privileged communication, i. e. they were not immune to court-ordered search. So it is possible that the participant observers were being extremely cautious in avoiding any explicit mention of illegal drugs for that reason. However, no such reticence was observed on the topic of underage drinking, which was mentioned quite openly. Participant observers had no particular reason or motivation for reporting the specific drug used and in the case of their roommates' behavior may not have known what drug was taken. Or, the participant observers may have merely been using these terms as synonyms for the more straightforward "drunk." Since there is no way to be certain, this discussion will refer to substance use or to alcohol and other drugs. Since this information was volunteered, not solicited by the log sheets or the researcher, and is not particularly favorable, it is probably underreported. The situation in which some of the conflicts for which substance use was not reported (e. g. returning to the room late Friday night after being out for the evening) suggests a high likelihood of substance use as well. The conflicts involving alcohol or drug use seemed to cause more negative feelings and to take longer to resolve than conflicts over similar issues which did not involve substance use.

The major issues of conflict in order of frequency were: cleaning and general room management (6), borrowing or use of individual belongings (3), one roommate leaving the room when the other had a date there (3), shared activities (3), behavior with dates in the room (2), schedule misunderstandings (2), room decorating (1), phone bill calculations (1), failing to hand in a roommate's paper as promised (1), conflict with the third roommate (1), and socially unacceptable behavior by a roommate (1). Being asked to leave the room when one's roommate had a date or guests seemed to cause the most rancor between roommates. Some dyads did handle this situation without any conflict or ill-feeling, however. Borrowing was also a source of ill will between roommates. Conflicts over messiness or cleaning were more frequent, but were usually quickly resolved, apparently without much negative emotional impact.

Higher-satisfaction dyads very frequently discussed conflict issues before the event or before taking action. Often when an issue of potential conflict was discussed in advance the participant observers did not consider it to be conflict. Even when the roommates disagreed, the beforehand or proactive relational communication did not seem to have a strongly negative impact on roommates' feelings or communication. Discussion of conflict issues that occurred after the fact, or reactive relational communication, usually had a negative impact, and was more common among lower-satisfaction relationships.

A more precise picture of this tendency was obtained by coding each discussion of a conflict issue, defined as any issue which caused a conflict in any of the relationships studied, as proactive, reactive,

or mixed, the latter being a discussion which made reference to both past and future without a clear predominance. High satisfaction dyads had means of 70% proactive discussions and 14% reactive discussions. Medium-satisfaction dyads had means of 45% proactive discussions and 44% reactive discussions. Low-satisfaction dyads had means of 37% proactive discussions and 55% reactive discussions. The remainder in each case consists of mixed discussions. Kruskal-Wallis tests showed significant differences among the three groups with respect to reactive discussions (n_j = (4,5,4), H = 7.55, $p<.05$) but not proactive discussions (n_j = 4, 5, 4), H = 3.61, $p>.1$). It should be noted that, because of the very inclusive definition of conflict issues the proactive category included quite a few conversations that may have had little likelihood of causing overt conflict in those dyads discussing them. That is, there is no way of determining whether a dyad would have experienced conflict over a given issue if it had not been discussed proactively. Also, separate discussions of the same topic were counted as individual discussions. Thus a dyad which had trouble reaching a decision and discussed the same issue many times could have a high score for proactive discussions while not covering many different issues. Several of the medium-satisfaction dyads had repeated discussions of room decoration and furniture arrangement, which were all counted as proactive discussions. These problems indicate that the operationalization of proactive discussions, necessarily limited by its post hoc basis in this investigation, needs refinement and that this test may lack power due to lack of precise measurement.

Several cases were observed in which the conflict potential of an issue was not predicted by one or both roommates and one roommate would

simply take a potentially conflict-provoking action without consulting the other. The least negative consequences of this event occurred when the offending roommate, probably acting on his or her observation of nonverbal cues, brought the matter up with the offended roommate, either as an apology or by asking the offended roommate how she or he felt about the matter. When the issue was raised by the offending roommate the dyad usually defined the incident as either a misunderstanding or unintentional and commonly reached some sort of agreement about handling similar situations in the future. However, in at least one case the offended roommate would not say what was bothering her when her roommate asked if she had done anything to upset her. When the offending party did not raise the issue, the offended roommate was left with the choice of either expressing his or her feelings, possibly triggering overt conflict, or not verbalizing her or his feelings, usually resulting in a lengthy period of resentment. If the offended roommate had waited some time for the offending roommate to bring the matter up, she or he might be more likely to continue in silence, now resenting not only the roommates' initial offense, but also her or his insensitivity. However, in at least one case a roommate decided that the offensive action did not really matter much after waiting a day or so to bring it up. Both overt conflict and remaining silent had negative impacts, but it seems that the negative consequences of overt conflict, which was not a necessary consequence of an offended roommate verbalizing his or her feelings, did not last as long, except when the conflict became person-centered.

Summary

The findings showed that there was an overall tendency for communication and satisfaction to decrease from periods 1 through 3 and to increase in period 4. Personal topics overwhelmingly predominated in roommates' conversations; the level of external topics was relatively low. The kind of topics discussed by roommates did not differ between previously acquainted and previously unacquainted roommates, but the higher proportion of serious conversations in previously acquainted roommates' interaction suggests that their treatment of the topics did differ. Both high- and low-involvement relationships could be satisfying, but unsatisfying relationships are generally low in involvement.

Four different types of roommate relationships were observed, each with a characteristic communication pattern, high involvement-high satisfaction, low involvement-high satisfaction, high involvement-medium satisfaction, and low involvement-low satisfaction. Extremely high or extremely low proportions of relational communication were associated with less satisfying relationships, moderate proportions with more satisfying relationships.

Almost all of the relationships experienced conflict, which seemed to be exacerbated by the use of alcohol or drugs. Higher-satisfaction dyads seemed to deal with conflict issues proactively more often, while it seemed that lower-satisfaction dyads more frequently dealt with conflict issues reactively.

CHAPTER IV

DISCUSSION

Critique of the Method

One test of any methodology is the information gained by using it. Although this method, like any other, has drawbacks, it has produced new information about the course of relationships being formed. Besides being collected over time, the data are quite detailed and likely to be far more accurate than data obtained by estimates over long or undefined periods of time.

As in any self-report measure, there may be self-flattering biases in the observations and there is no way to actually check the reports. However, the participant observers did report some quite unflattering things about themselves concerning skipping classes, drinking, and dating, as well as their behavior with their roommates.

The two roommates who were both participant observers in this study did report the same incidents and the same events in the incidents. Due to technical problems with the dating of their logs, day-to-day numerical comparisons have not been possible. Since these participant observers knew their logs would be compared, they may have been more careful, but I am quite certain that there was no collusion in their reporting.

It is very unlikely that any of the logs is a complete fabrication, as could easily be the case with methods using single questionnaires, because of the difficulty of maintaining a believable fabrication over

10 weeks. Log sheets were turned in weekly, so a student could not consult earlier logs, (unless copies were made). In any case, inventing a roommate relationship is far more work than reporting on one that exists, and it is hard to conceive of any motive a student would have for doing so. The most likely problem with bias is self-serving omissions, but even here the method may compare favorably to other self-report methods because the participant observers were encouraged to feel a part of the study and to contribute to its success.

The participant observers do not seem to be atypical of college students in any of their background characteristics. They are probably more interested in communication and relationships than average, since they elected to take a class on relational development. Interest does not equal differences in performance, however, and a wide range of relationship outcomes were observed in the sample.

Three instances of possible influence of the research on the relationships were observed. First, one roommate told his participant observer roommate early in the quarter that he thought that the study was stupid and useless and that the participant observer was dumb for taking part in it, although he did not object personally, apparently using quite foul language to make his point. Certainly this had a negative impact on the relationship, but it is hard to say how much of that impact is due to the research. A roommate could have a similar negative opinion of any activity in which his or her roommate participates, and could say so in the same blunt way, or express the opinion more tactfully, or refrain from expressing the opinion. Nothing about the research would have led this roommate to voice his opinion in that

particular way. Second, one participant observer's roommate expressed some apprehension, also quite early in the quarter, about what her roommate was recording in her observations. The participant observer reported that her roommate was not apprehensive after being shown a blank log sheet and being told that the only information reported about the content of most conversations was the topic. This observer was probably less likely to volunteer information beyond what was specifically solicited than the other observers, but her logs seemed to be quite complete. Her observations do not show any substantial differences from those of the other observers; that is, there is nothing suspicious about them. Third, participant observers were given the assignment of taking a set of questionnaires and accompanying cover letter to their roommates. The unenrolled roommates were asked to fill out the questionnaires and promised a small monetary reward on completion, but were told that their participant observer roommates would not be penalized if they did not complete any or all of the questionnaires. Nor would participant observer roommates have access to any information from the questionnaires, if completed. This assignment was given at a time when one participant observer was avoiding her roommate as much as possible and speaking to her hardly at all. The assignment induced her to speak to her roommate civilly, and after that there were somewhat higher levels of interaction. The research clearly had an influence in this case, although it did not change the relational outcome. The influence was not unique to the research since any one of a large number of other exigencies could have induced the participant observer to speak to her roommate, most likely with the same effect. No one can say if or when

another exigency would have taken effect, if there were no research project, but at least the effect of the research was not unnatural nor would it be expected to produce unnatural sorts of behavior. And, since the only known instance of a clearly attributable influence of the research was positive, concerns about the ethicality of the method should be eased.

In sum, the participant observer daily log method seems to be a workable and useful addition to the communication researcher's "toolbox" despite some disadvantages. Using the method has suggested some improvements and shown some problems which could be avoided.

The log sheets themselves could be improved to provide more useful data with greater efficiency. The four separate sets of ratings for the total relationship and each of the three types of relational communication are not needed. Most of the time the four ratings were similar if not identical. Problems were also caused by the policy of not rating a communication type when it did not occur, but the concept of rating a nonoccurrence makes little sense to observers except when they are distinctly unhappy about lack of communication. One rating of communication with the relational partner would ease the difficulty and reduce unnecessary duplication. The participant observers in this study seemed reluctant to use the lower halves of the semantic differential items unless they were quite strongly dissatisfied. They may have had a dichotomous concept of satisfaction which led them to use the top half of the scale until they were clearly dissatisfied, with variation within each scale-half expressing the intensity, not the degree of their feelings. Perhaps another rating format or different instructions

would reduce this tendency.

Participant observers had trouble deciding what should be recorded in the "effort to be with or avoid" sections of the log sheet, even after repeated explanations. The information sought here was deliberate avoidance actions, but the attempt at neutral wording clearly confused the participant observers. Perhaps avoidance would be better handled as one of several items to be included in "other observations" if or when they occur. Shared activities were not recorded consistently in this section, nor did they necessarily always show up in the interaction reports. Since shared activities seem to be an important relational characteristic, information about them should be solicited directly, possibly using a checkoff list.

Although soliciting topic categories in an open-ended fashion had the advantage of not restricting the observations, it seems very likely that quite similar conversations were recorded quite differently because of the wording used in the topic descriptions. For instance, one member of the pair of participant observers in the study frequently listed "people" as a conversation topic while the other listed "friends" or "people we know." Some means of ensuring a common nomenclature is needed. This could be training the participant observers in a category system, using a checkoff list of topics, or soliciting clarification for ambiguous descriptions.

The number of conversations recorded was almost always the same as the number of topics recorded, although a conversation was defined for the participant observers as a continuous or nearly continuous period of interaction. Clearly, not enough time was spent in clarifying

the definition. If number of conversations is to be used in the future the researcher should make sure that participant observers understand the definition of conversation.

On a very mundane level, there should be an obvious blank to be filled in for every item of information needed. Students do not seem to actually read the directions each time they record data, but rely on memory. Sometimes they forget to include all the pieces, especially when there is no specific space to be filled. Predated or prenumbered log forms may be helpful as well because some participant observers record dates incorrectly. The most common way that this happens is when a participant observer gives the first log of a new set the same date as the last log of the set of log sheets just handed in.

It would be a procedural improvement to collect logs more frequently than once a week because it would give the researcher a better chance to recover any missing data before the participants forget and to straighten out any mixed-up log sequences. It would also help ensure daily recording. Needless to say, log sheets should be checked very carefully each time they are handed in.

If the researcher wants to compare the observations made on specific days the participant observers should be instructed to record their observations at the same time. In this study participant observers recorded observations every day, but could choose the time of day they did their recording. Consequently, the logs are not comparable for specific days.

Finally, a prudent researcher will seriously consider how to computerize the data analysis when planning the research. Data collected over time accumulate very quickly and if the statistical methods to be

used are not among the software available to the researcher the task can be monumental.

Thoughts on the Findings

The clear decrease in overall communication and relational satisfaction in Periods 1 through 3 and subsequent rise in Period 4 would not be expected based on either escalation or equilibrium models of relationship formation. Possible explanations for this pattern include external causes as well as factors intrinsic to the relationship formation process.

The least plausible explanation is that as mostly new students on a large campus participants were dependent on their roommates for companionship in the early part of the quarter, but as they made other friends and were less dependent on their roommates, roommate interactions decreased. And, as they had less dependency and a wider range of potential roommates for comparison (Berg, 1984), satisfaction ratings dropped as well. This notion does not explain the increase in satisfaction and amount of interaction in Period 4, nor does it apply very well to this sample of roommates. Even most of the ones who were new on campus had a number of friends and acquaintances from their hometowns at the university. Those who did not have old friends made new ones very rapidly, so that virtually every participant had a circle of "friends" by the end of the second week of classes. Thus, there was no early dependence on the roommates or lack of potential alternative roommates for comparison.

A more likely external explanation is based on the cycles of the academic calendar. Most students feel relatively relaxed about their

classwork in the early weeks of the term. Besides being in an easygoing mood, the students were willing to spend quite a bit of time in social and recreational activities, including activities shared with their roommates. Readily available time to spend in generally pleasant activities and conversations combined with both partners feeling relaxed and probably enthusiastic about the coming school year could result in favorable ratings and large amounts of time spent in conversation.

The students' academic workload tends to increase as the term progresses resulting in less free time and more tension. Having less time available leads directly to less time spent in conversation, which in turn may make the relationships less rewarding. The pressure could also cause the students to feel more negative about everything in their environments, including their roommates, as well as making them less tolerant of others' behavior and less accommodating in their own.

The mounting academic pressure is interrupted by Thanksgiving vacation, which probably has a positive effect in itself. Four days of relative relaxation away from the pressures and tensions of campus and away from one's roommate would tend to put the students in a more positive mood and make them more tolerant and accommodating. Some students may have gained perspective on their roommate relationships from discussions with parents or older friends or relatives.

The pressure experienced during finals and the few days between Thanksgiving and finals seems to have been qualitatively as well as quantitatively different from that experienced during the term. Finals pressure was more intense than that experienced during the quarter, but it also had a crisis like quality. Students could foresee that in

a few days the quarter would be over. During the term roommates usually had exams or assignments due at different times, but during finals there was a sense of commonality. Participant observers' log sheets during this time indicate that they approached finals as a shared experience even though roommates were not usually taking the same exams.

The cultural and natural calendars may have had effects as well as the academic calendar. First, as the academic environment becomes more stressful, the natural environment becomes less pleasant as well. The sunny, mild days and beautiful foliage of early fall give way to dark, cold, bleak and rainy late fall, with predictable effects on students' moods. This would tend to exacerbate students' feelings of increasing tension and their impacts on roommate relationships. In early December there may be--and in the term of data collection there was--a first snowfall. Not only does the white mantle make a dramatic improvement in the aesthetic quality of the campus, it also prompts a playful and childlike spirit among many students, who break away from their studies to go sliding, throw snowballs, or make snowmen. If these activities were shared by roommates, they would help ease the tensions between them as well as making the relationship more rewarding. Even if not, the spirit-lifting effects of the snowfall would be likely to enhance the positive impacts of Thanksgiving break and the shared experience of finals on roommate relationships.

Second, the roommates may have been influenced by the approaching Christmas season with its aura of peace, goodwill, and good cheer. Many of the dyads decorated their rooms, planned some kind of holiday party, or distributed joint cards. Many also exchanged gifts, including at least one dyad that was not otherwise on very good terms. The

Christmas influence seems to be cultural rather than specifically religious as some of the Jewish roommates were very enthusiastic promoters of the Christmas spirit while the most actively religious Christian dyad reported no seasonal activities.

The decrease and subsequent increase in interaction and satisfaction could also be generated as part of the process of forming a relationship. Students may have an ideal or stereotype of their prospective roommates and gradually become disillusioned when the actual person does not match the ideal. After a period of disappointment, or grieving for the lost ideal, they may come to appreciate the real individuals who are their roommates and renew the relationship on a realistic basis. Alternatively, they may terminate their roommate relationships on the basis of their initial disillusionment or discover that when viewed more realistically, their roommates' unattractive features far outweigh the attractive features. Another, rather sad, possibility is that disillusioned roommates may allow conflict between them to escalate and become person-centered to the degree that their wounded feelings demand that each believes the worst of the other (Miller & Steinberg, 1975; Steele & Woods, 1977).

A similar idealization-disillusionment cycle has been postulated as an explanation for dissatisfaction among recently married couples (Blood & Wolf, 1960; Hall & Taylor, 1976; Hobart, 1958; Spanier, 1972; Waller, 1937). In the case of spouses, the courtship process is theorized to produce a biased or unrealistic image of the relational partner. During courtship relational partners are usually together for a limited time, predominantly in pleasant recreational situations.

When they are together, each focuses her or his attention on the other. They seek to present their better qualities and hide or minimize less attractive qualities. Courting couples often interact in a way more closely resembling "company manners" than the way they treat family members. After marriage this unrealistic image cannot be maintained. Spouses are together extensively, frequently in unpleasant situations. "Company manners" are dropped, and less attractive qualities become more noticeable under the stresses and strains of daily living. Thus idealism and disillusionment are proposed to have a basis in experience.

Roommates go through a similar, though not identical process. Some dyads were acquainted on a more limited basis prior to becoming roommates. For these the idea of biased perceptions based on limited experience applies in the same way as to the newly married. For all of the dyads, the first few weeks of the term were their time of most intense and most positive interaction. It is only reasonable to suppose that each desired to put her or his best foot forward. Reports in the logs indicate that very many of these early interactions were in pleasant or recreational situations. Overt conflicts and less pleasant situations, such as a roommate's illness or conflicts with neighbors, were more likely to come later. As the term progressed the roommates interacted less, and possibly less pleasantly, and their satisfaction with their relationships diminished.

The fluctuations in roommates' satisfaction with their relationships were based on experience, but their initial, strongly positive ratings and descriptions went far beyond their experience in many cases. They did not have a mildly positive or tentatively positive attitude toward their relationships that this early stage would warrant.

Instead they described their relationships in glowing terms such as "wonderful" and the "bestest in the whole world." This seems to reflect cognitive dynamics other than their relational experience to that date.

Clearly the roommates wanted their relationships to succeed. At a pragmatic level, a pleasant roommate relationship would make life easier and more pleasant for them. Many of them also felt ego-involved; that they ought to be able to form a roommate relationship and a less than wholly satisfactory relationship would be a personal failure. A number of the roommates had chosen to room together or chosen to stay together when their room was restored to double-occupancy after an initial "tripled" period. These roommates needed to support the wisdom of their choices as well as their images as people who can get along with others. Thus, it seems that the roommates provided ratings and descriptions consistent with their beliefs and desires when they had limited or ambiguous information, just as participants in Newcomb's (1961) study of the acquaintance process "autistically" rated attractive but unfamiliar others as having attitudes similar to their own. It would seem that this phenomenon could be conceptualized within a cognitive consistency framework.

The cognitive consistency perspective can be used to generate hypotheses which could be tested in future research. First, the level of perceived choice about entering into and remaining in the relationship is hypothesized to be positively related to relationship ratings. Thus, all other things being equal, roommates who elected to room together would rate their relationships more highly than those who were assigned to live together. Those roommates who felt that they continued to have

a choice about rooming together and continued to do so would rate their relationship more highly than those who felt they were stuck with their roommates. This hypothesis raises the possibility that it was the perception of choice or matching rather than the matching itself which produced roommate compatibility findings in some previous research (Roby, Zelin, & Chechile, 1977).

Second, the greater the effort to maintain the relationship, the higher the relationship rating. That is, given relationships of similar quality, the roommate who does more to maintain the quality of his or her relationship will rate that relationship more highly. Effort affects the ratings directly through cognitive consistency and indirectly by changing the relationship itself. Unless the roommates' efforts are totally counterproductive, they will make the roommates' experience of their relationships more positive, leading them to rate their relationships more positively.

Third, extrinsic rewards associated with the relationship would be expected to have short-term negative effects on the relationship ratings, but could have long-term positive effects. Extrinsic rewards provide roommates a justification for staying together other than the quality of their relationship, removing or mitigating the pressure to rate the relationship highly positively. For instance, a student could justify staying with a brilliant but quite unsocial roommate who provides academic help on the basis of the help provided while recognizing that there is little rewarding interpersonal interaction in the relationship. However, to the extent that the extrinsic rewards are valued, roommates are likely to exert efforts to maintain their relationships at a sufficiently positive level that they will keep

receiving the rewards. Over time these efforts may lead to improvements in the quality of the relationship itself. For example, pleasantness or favors toward the unsocial roommate who provides help with homework may produce a warmer interpersonal climate as well as continued assistance. The improvement in the quality of the relationship would be reflected in the later ratings.

Fourth, public commitment to an attitude about the roommate relationship would be expected to contribute toward perpetuation of that attitude. It may also influence the nature of the relationship itself through a self-fulfilling prophecy sort of process in which one roommate's attitude leads her or him to behave in a way that elicits the behavior she or he expects from the other roommate. Even without public commitment, roommates' attitudes toward their relationships or toward each other would be expected to influence the nature of the relationship.

Since the nature of a roommate relationship is readily susceptible to day-to-day change, clearly cognitive consistency cannot account for all of the variation in relationship ratings, but is only one of several processes influencing them. Cognitive consistency forces would be expected to play the largest role, relative to others, in the early part of the relationship's life. Idealization-disillusionment would only operate in the early part of the relationship, but the cyclical influence of the academic calendar and seasonal effects would be repeated each term and each year, respectively. Studying relationships over several terms and comparing new relationships to continuing ones for the same term would help to separate academic calendar, seasonal, and

relationship effects. Studying relationships formed in settings without the strong cyclical influence of the academic calendar would also be helpful. The influence of academic pressure can be tested more straightforwardly by measuring academic pressure, either in terms of roommates' feelings of being pressured or in terms of their current work loads.

Whatever the causes of the U-shaped pattern of relationship ratings and amount of interaction, it seems clear that a researcher who measures roommate relationships at the beginning and end of fall quarter, possibly any quarter, is measuring the two highest points for relational satisfaction and interaction. Measurements should be taken at other times if the goals of the research require measurement of either low points or the full range of these variables.

The findings provide new information about the role of different kinds of communication in relationships. They suggest that the proportions of different kinds of communication may be more important in forming a satisfactory relationship than the sheer quantity of communication. For example, some high involvement-medium satisfaction dyads spent much more time interacting than did some of the low involvement-high satisfaction pairs. At the other end of the spectrum, the low involvement-low satisfaction dyads spent very little time interacting, but also had a distribution of their interaction time among the three kinds of interaction which differed markedly from the medium and high satisfaction dyads. Although casual conversations still predominated, high satisfaction relationships had the most even distribution among the three interaction types. Medium satisfaction relationships had a

huge predominance of casual conversations with little serious and relational conversation by comparison. Low satisfaction relationships had low overall levels of interaction with a predominance of relational discussions, little casual conversation, and extremely little to no serious conversations.

The findings also imply suggestions about the role of each type of communication in relationships. Casual conversations, which account for the majority of roommates' interactions, seem to be a major source of reward in the relationships (Block, 1980). Research by Peters and Kennedy (1970) and Werner and Parmelee (1979) indicates that students' similarity of activity preferences was a significant factor in whether or not they were friends. Werner and Parmelee (1979) found similarity of activity preferences to be a better predictor of friendship than attitude similarity. Casual conversation can be regarded as a shared activity itself, and roommates' sharing of interest and participation in other activities no doubt makes their conversation more rewarding. It seems quite meaningful that the amount of time spent in casual conversation is so low in low satisfaction relationships. This, coupled with the rewardingness of casual conversation suggests that increasing the amount of rewarding casual conversation would be a good way to improve low satisfaction relationships, especially when there is no major substantive conflict. This approach seems to be superior to trying to induce self-disclosure in low satisfaction relationships which have very little casual conversation because the normal pattern of interaction in roommate relationships with medium and high levels of satisfaction has a predominance of casual conversation and increasing

self-disclosure, a serious kind of conversation, distorts this normal interaction pattern. Also, except for "stranger on the plane" situations, major self-disclosures are normally preceded by substantial interaction on non-personally-private topics. Inducing self-disclosure in relationships which may lack this foundation of non-self-disclosive interaction again creates an unnatural and very possibly uncomfortable situation.

Serious discussions were associated with highly satisfied and previously acquainted dyads, invoking the concepts of trust, self-disclosure, and social penetration. Since a number of the topics listed in the log sheets under serious discussions seem unlikely to be personally private, probably only some of the serious discussions could be considered genuine self-disclosure, though some of them surely were. Serious discussions were generally "deeper" in social penetration terms than casual conversations. Thus a higher frequency of serious discussions would indicate greater social penetration and trust and higher levels of self-disclosure, consistent with finding more serious discussion in previously acquainted dyads. A main interaction pattern difference between high satisfaction and medium satisfaction dyads was the smaller proportion of serious discussion among the medium satisfaction dyads. One would expect more satisfied roommates to have higher levels of trust and more positive feelings toward each other, leading to greater self-disclosure. But, statements by participant observers in the medium satisfaction group expressing their desire for more intimate conversations suggest that serious discussions are also a rewarding aspect of the relationship which influences satisfaction with the

relationship. This raises the possibility that the high involvement-medium satisfaction relationships are less mature forms of high involvement-high satisfaction relationships.

Presumably it is also possible for interaction in a relationship to become overly serious and therefore less rewarding, but this was not observed in this study. Instances were noted when roommates found repeated discussions of a roommate's problems to be wearying and a definite negative aspect of the relationship. Research by Hammen and Peters (1978), showing that expression of characteristically depressive affect and attitudes elicited rejection of the depressed person and feelings of depression in the listener, supports this.

Extreme proportions of relational communication, as suggested by Miller and Steinberg (1975), are associated with less satisfying relationships. The low satisfaction group had the largest proportion of relational communication. However, as noted earlier, this does not mean that the actual amount of relational communication in these relationships was larger, rather that there was very little of any other type of communication. Much of the relational communication observed in this study was very utilitarian relational management, a certain amount of which seems necessary to coordinate behavior. This necessary communication persisted to some extent when more elective types of communication were avoided or neglected. Any conflict was considered relational communication for the purposes of the observation recording, and this could also be a persistent feature of low satisfaction relationships.

In the case of high involvement-medium satisfaction relationships it seems to be the timing and type of relational communication rather

than strictly the amount which would make a difference. Greater use of proactive relational communication rather than resolving conflicts after the fact would help them avoid conflicts and result in greater satisfaction if this is true.

There are at least two reasons why these roommates did not deal proactively with potential conflict issues. First, these students, mostly young freshman women, may have been the most susceptible to idealism about their relationships in particular and relational mythology in general. Phillips and Metzger (1976) describe the tendency toward attributing magical qualities to relationships and viewing them as just happening because of some perfect matching of personalities. Attitudes such as these would militate against foreseeing potential conflicts and dealing with them in a purposeful fashion. Results of Phillips and Metzger's (1976) survey show young adults and teenage respondents most likely to attribute magical qualities to relationships and females showing a greater tendency toward relational idealism than males. Second, since most of the students in this group were first-term freshmen, they had little or no experience at being roommates. This would have made them less able to foresee potential conflict issues than more experienced roommates even if they were equally inclined to do so.

Do similar patterns exist in other types of relationships? Are there optimal ranges for each type of interaction? The pattern seen here suggests that relationships below a minimal level of interaction are not satisfying, but above that level the proportions of the different types of conversations are more important factors in relational

satisfaction. Further exploration of the functions and normative and optimal levels of different types of communication in relationships seems to have a great deal of potential for generating useful information.

The characteristics of the relationship types observed in this study prompt speculation about their causes and generalizability. The observation of both high involvement-high satisfaction and low involvement-high satisfaction should help to dispell the notion that more communication is necessarily better. Unfortunately, this research provides only a little insight into what causes a relationship to be characterized by high involvement rather than low involvement or vice versa.

First, the lack of previously unacquainted dyads in the high involvement-high satisfaction group suggests that this kind of relationship requires a level of knowledge and trust which may take longer than 10 weeks to reach. Trust, of course, would permit a satisfying level of serious discussion. Greater knowledge of the relational partner would lead to more accurate predictions about his or her reactions, which should produce less conflict and more stable communication and satisfaction patterns. Since the high involvement-medium satisfaction relationships resemble the high involvement-high satisfaction relationships in many ways, but have a lower proportion of serious discussions and greater volatility, they may, as already suggested, be younger versions of high involvement-high satisfaction relationships. What seems likely is that some of these relationships do stabilize over time, either at a low involvement or high involvement level, while others

may become embroiled in conflict and disintegrate. Clearly observation over a longer period is needed to explore how the level of involvement is negotiated in relationship formation and what characteristics might be predictive of the stabilized level of involvement or of failure to stabilize.

Since high satisfaction dyads were composed of older students, their greater experience in forming roommate relationships was probably a factor. Relatively intangible qualities of personal maturity, e. g. adaptability, tolerance, consideration, probably helped. However, conversations described in the participant observers' logs seem to indicate that the older roommates in high satisfaction relationships were better able to foresee conflict issues and deal with them before they became problems. As discussed earlier, younger students may be both less experienced and more idealistic. This possibility suggests that helping less experienced roommates foresee conflict issues and deal with them proactively would result in higher satisfaction in their relationships.

All the high involvement relationships struggled with the issue of separateness versus togetherness. The high satisfaction group could have been moving toward an equilibrium on this issue, but the medium-satisfaction group showed only oscillation. Medium satisfaction dyads actually spent less time together in the later weeks of the term than in the earlier weeks, but reported conversations in the later weeks which showed a strong sense of relational identity. Previously acquainted dyads showed greater awareness of the separateness-togetherness issue, and sometimes expressed the idea of maintaining a balance. They commonly, though not universally, explicitly discussed

separateness-togetherness issues. Previously acquainted roommates on a new campus can easily find themselves becoming overly dependent on and involved with each other, an outcome which these roommates explicitly wanted to avoid. Previously unacquainted roommates did not discuss separateness-togetherness issues generally, but did negotiate about particular occasions, most commonly visits by relatives or friends. And, it seems that the accumulation of their behavior and agreements on specific occasions would eventually produce a tacit understanding. Several of the participant observers expressed the idea that they ought to be close friends with their roommates and spend quite a bit of time with them, but found that this conflicted with other values and goals, including independence, meeting a wide variety of people, and devoting considerable time to study.

Background characteristics of the roommates may have been a factor in the lack of success of the low involvement-low satisfaction relationships, but the immediate causes seem to be lack of rewarding casual and serious interaction, a reactive approach to relational management along with "hidden legislation" (Miller & Steinberg, 1975) or unstated relational expectations, and person-centered conflict. It is unlikely that these relationships could have been repaired once the low involvement-low satisfaction pattern became established nor was there any compelling reason for these individuals to stay roommates. Ideally, low involvement-low satisfaction relational situations such as these should be avoided or curtailed because they hinder students' academic progress (William & Reilly, 1972) and have a strong negative influence on their short-term quality of life and psychological health. Matching

roommates on various demographic and personality factors has not shown much success (Nudd, 1965; Williams & Reilly, 1972) except possibly when it also increases the perception of choice (Roby, Zelin, & Chechile, 1977). An approach with more likelihood of success is to provide roommates with assistance early in the term in foreseeing potential conflict issues and dealing with them in a nondestructive manner. Counseling by residence hall staff should be readily available to students so that when destructive conflicts do erupt students will seek help in dealing with them before the relationship is damaged beyond repair. Resident assistants should be trained in conflict management and briefed on the common problems in roommate relationships.

Toward Future Research

The most obvious further research suggested by these findings is an expanded replication with a larger sample, a longer measurement period, a revised and more efficient log sheet, and more narrowly focused research objectives. Greater generalizability within the population of roommates could be gained for several of the findings by sampling days within each segment of the quarter, and asking a very large sample of roommates to report on their communication with their roommates on that day. This approach would be far preferable to soliciting global ratings or estimates over times of a week or more, which will not provide either the detail or the accuracy of daily reports.

One set of research questions which could be examined in either type of study concerns the sources of the decrease-increase pattern of communication and satisfaction over time. The influence of academic pressure on relational satisfaction should be examined directly in

conjunction with direct measurement of shared activities. Possible hypotheses are:

1. The greater the perception of academic pressure the lower the relational satisfaction.
2. As academic workload increases, shared activities decrease; as shared activities decrease relational satisfaction decreases.

Another set of questions concerning seasonal effects on relational communication and satisfaction would involve comparing roommate relationships beginning fall term with those beginning winter and spring terms. Examining cognitive consistency and idealism effects on relational communication and satisfaction would be more complex, possibly involving comparisons of students' descriptions of relational interaction with their relationship ratings. Cognitive consistency dynamics are expected to influence roommates' ratings of their relationships, but not so strongly as to override the natures of the relationships themselves. If measurement questions can be set aside at this time, the following cognitive consistency hypotheses concerning relational satisfaction may be generated.

3. The greater the perceived choice, the higher the relationship rating, all other things being equal.
4. The greater the effort to maintain the relationship the higher the relationship rating.
5. Early in relational history, the higher the level of extrinsic reward, the lower the relationship rating.
6. The greater the public commitment to a positive attitude about the relationship the higher the relationship rating.

Several hypotheses could also be generated concerning idealization-disillusionment. First, one would expect that individuals who are generally idealistic about relationships or about college life would be most likely to idealize their roommate relationships, which leads to the following:

7. The greater the idealism about relationships, the greater the tendency to idealize the roommate relationship, that is, to give extreme positive ratings early in the relationship when experience with and knowledge of the relationship and relational partner are minimal and ambiguous.
8. The greater the idealism about college life, the greater the tendency to idealize the roommate relationship.

Second, idealism about relationships would be expected to blind one to potential problems and to lead one to deny the need for or efficacy of explicit efforts to maintain or improve the relationship. The former follows from the initial idealization; if the relationship is already wonderful why would anyone expect problems? The latter is exemplified by the notion that "real friends" somehow understand each others' needs without any discussion. Thus, the following hypotheses would be proposed.

9. The greater the idealization, the less the facility at foreseeing potential problems or conflicts.
10. The greater the idealization, the less the explicit efforts to maintain the relationship.

Since foreseeing conflict and explicit efforts to maintain the relationship are expected to help roommates avoid conflict, these predictions

may be made:

11. The less the ability to foresee potential problems, the greater the likelihood of overt conflict.
12. The less the explicit relational maintenance, the greater the likelihood of overt conflict.

Finally:

13. The greater the likelihood of overt conflict, the greater the likelihood of violating the early attitudes about the relationship and of relational dissatisfaction.

A second area which merits further investigation is the types of relationships identified in this study with the goal of being better able to describe the population of roommate relationships and possibly generalize to other types of relationship. Research questions to be examined would be:

14. What are the relative frequencies of the six different types of relationships formed by differences in involvement and satisfaction?
15. What kinds of communication are associated with each relationship type?
16. What characteristics of relational partners are associated with each relationship type?

The relationships should also be observed over time in order to note any changes from group to group. These changes might indicate that some forms are transitional or unstable.

Third, the functions of different types of communication in relationships should be examined more carefully. Since the proportion of

serious discussions seems to be important in differentiating medium and high satisfaction relationships, as has been previously discussed, increases in the proportion of serious discussions would be expected to parallel increases in satisfaction:

17. As the proportion of serious conversation increases (up to a point) relational satisfaction increases and vice versa.

It was also noted that low satisfaction relationships were characterized by very little rewarding casual interaction, leading to this prediction.

18. If casual conversation or shared activity can be increased in a low satisfaction relationship, satisfaction will increase.

Finally, the effectiveness of proactive discussion of potential conflict issues should be examined. Observations made in this study suggest the following hypotheses:

19. Proactive discussion of potential conflict issues lowers the frequency of overt conflict and increases relational satisfaction.

This last hypothesis could be tested quite straightforwardly. First a large-sample survey to identify the most common conflict situations would be needed. Based on the survey results, a series of typical conflict situations could be described. In the fall roommates in the treatment group or groups would be instructed to use the descriptions as the basis for discussion of the conflict issues. Alternative treatment methods could be having the roommates discuss the sample situations without specific instructions to apply the situations to their

own relationships, having the roommates discuss the situations with specific instructions to apply the situations to their own relationships with and without instructions to reach a decision on how to deal with such situations, and having the roommates role-play the roommates in the sample situations. Frequency of conflict and relational satisfaction of the treated roommates would be compared to untreated roommates using measurements taken at least twice a quarter for the rest of the school year. If successful, this treatment would be a relatively easy and inexpensive means of improving students' roommate relationships, which has the potential for beneficial effects in their interpersonal communication generally. Improving roommate relationships would have positive impacts on students' academic success and probably their overall attitude toward college and the specific institution.

Although not a focus of this study, concerns raised by the observations on the high frequency of substance use playing a role in roommates' relational conflicts should be addressed in future research. Although a number of studies have focused on the health and long-term addiction problems of alcohol use by college students (Ewing, 1977; Girdano & Girdano, 1977; Kazalunas, 1982; Kozicki, 1982; Looney, 1977), there is little information available on how alcohol use affects performance in interpersonal situations or what long and short range effects it might have on users' relationships. Adolescents and young adults' relationships may be particularly affected by alcohol or other drug use because they are still learning to form adult relationships. To the extent that use of alcohol or other drugs interferes with their learning, all of their future relationships are affected. Relational

successes and failures during the high school and college years have particularly strong impact on students' self-concepts as well. Teachers and counselors should have information about the influence of alcohol and other drugs on communication. Educating students on this topic would help them understand and deal with their own and their peers' behavior.

In conclusion, this study has provided a useful field trial of a method not commonly used to study interpersonal communication. It has provided new information about college student roommate relationships including findings on interaction time, topics, distribution of interaction time among three types of communication, patterns of communication and satisfaction over time, and differences in the communication patterns of relationships which differ in previous acquaintance, level of involvement, and roommates' satisfaction with their relationships. Finally, it has suggested areas for further research based on the findings.

APPENDIX

Syllabus: Communication 299, Section 5, Fall 1980, 3 credits

Interpersonal Communication Applied to Developing Relationships.

Instructor: Lynn Aho
520 South Kedzie Hall
353-3248

T-TH 3:00 - 4:20
301 Agriculture Hall

Course Objectives: This course is designed to raise student's awareness of their own interpersonal communication through participation in an ongoing research project as well as through providing instruction on interpersonal communication. Key concepts and research findings will be presented in the context of a developmental perspective on interpersonal communication. Research techniques used in studies of interpersonal communication will be presented, along with discussion of the generalizability of research findings. Discussions and assignments will be oriented toward encouraging students to apply concepts to their own communication.

Text:

Gerald R. Miller & Mark Steinberg, Between People: A New Analysis of Interpersonal Communication. Science Research Associates: Chicago, 1975.

Assignments:

DAILY LOGS: Each student in this class will act as a participant observer recording data on the development of his/her relationship with his or her roommate. These data will be recorded on daily log sheets. One log sheet will be filled out each day of the term, yielding a total of about 70 sheets. Blank log sheets will be passed out and completed log sheets collected each Thursday (except November 27). Except in special circumstances, log sheets will not be considered satisfactorily complete if handed in later than the Tuesday following their due date.

WEEKLY ASSIGNMENTS: Usually one or two assignments will be made each week. Assignments will be fairly brief, and may consist of completing a questionnaire, describing an object or event, or participating in a class activity. Many assignments will be completed in class.

Since the log sheets and weekly assignments will be the data for a study of relational development (subject to approval of the University Committee on the Use of Human Subjects in Research) they must be retained for analysis. You may receive a photocopy of in-class assignments if you wish. It is your own responsibility to retain copies of homework assignments if you so desire. You will receive weekly feedback on the assignments you have handed in.

Grading: Your grade will be based on your satisfactory completion of log sheets and weekly assignments. Each daily log sheet will count one point; each weekly assignment will count 2 points.

Completed work will receive full credit; incomplete work will receive no credit. There will be about 110 total points. Grades will be based on the student's percentage of total points as follows:

98 - 100% . . . 4.0	85 - 88% . . . 2.0
95 - 97% . . . 3.5	81 - 84% . . . 1.5
92 - 94% . . . 3.0	77 - 80% . . . 1.0
89 - 91% . . . 2.5	76% or less. . 0.0

Attendance: Attendance is not required, however, it will be the student's responsibility to make up material from classes missed. This includes in class assignments, homework, and lecture material. Class will meet during the scheduled exam period, Tuesday December 9, 10 - 12 a.m., for a course evaluation activity, which will count as a weekly assignment.

Reading Schedule:

Reading:	Date to be completed:
Chapter 1, first 2 sections, pp. 2-12 (top)	September 30
Chapter 2, first section, pp. 33-46 (top)	September 30
Remainder of Chapters 1 & 2	October 2
Chapter 3	October 9
Chapter 4	October 16
Chapter 5	October 23
Chapter 6	October 30
Chapter 7	November 6
Chapter 8	November 13
Chapter 9	November 20
Chapter 10	November 25
Epilogue	December 4

Incomplete Policy: A grade of incomplete may be given only when the student has completed at least eight weeks of the term, but is unable to take the final exam and/or complete the class work because of illness or other compelling reason; AND has done satisfactory work in the course; AND in the instructor's judgment can complete the required work without repeating the course.

Com. 299, Fall 1980

Instructions for Recording Data in Daily logs

1. Put your research ID number and the date on each page.

2. Rate your own feelings about your total relationship with your roommate. Do this whether or not you spent any time with your roommate today.

   The rating scales on the log sheet are semantic differential items. For each item, you should rate your feelings with respect to the two polar adjectives at the ends of the item. For instance, if you feel very good about your relationship today, you would mark the first item like this:

   good _X_:___:___:___:___:___:___: bad

   If you felt very bad about your relationship today, but not completely bad or extremely bad. . . say about three quarters of the way from completely good to completely bad, you would mark the item like this:

   good ___:___:___:___:___:_X_:___: bad

   If you felt somewhat neutral about your relationship today, or if you felt about equally bad and good, you would mark the item like this:

   good ___:___:___:_X_:___:___:___: bad

3. Fill in your best estimate of waking time you spent with your roommate. Include any time in which you and your roommate could potentially interact. For example: include the time you and your roommate spend in class if you sit near each other and talk or exchange significant glances. Do not include time spent in the same class if you sit far apart and have no chance to interact.

4. In items 3 and 4 describe any actions you or your roommate took to be together or apart. Naturally, you know the reasons for your own actions, but can only infer your roommate's reasons for his or her actions. Put down what you believe to be true right now. You may discover later that your roommate's actions had a different goal entirely. If so, note this in the log for the day you discover it, under "other observations."

5. Parts B, C, and D require you to distinguish types of interaction. Casual conversations are those in which the topics are mostly not relational, you consider the conversation light or casual, as opposed to serious or heavy, and not a lot of energy is required. The usual goal of this kind of interaction is to socialize with others, or to entertain each other.

Com. 299, Instructions for recording data

Serious discussions about non-relationship issues are different in tone from casual conversations; the participants consider them serious or "for real." Somewhat more communication energy is required for these interactions than for casual conversations. The topics are not necessarily life-or-death; they may be remote from the participants or quite abstract. Common goals for this type of interaction are exchanging views on events or issues, gathering information, giving or receiving advice, or telling about experiences.

Serious discussions about relational matters differ from other serious discussions only in topic. These discussions center on the relationship and coordinating behavior with respect to each other. Discussions of any aspect of your living together, such as arrangements for sharing time and space, or any other aspect of being roommates, would be included. Any discussion which you would consider a conflict or the resolution of a conflict should be included in this category, even though it may be "about" a non-relational topic.

For casual conversations and non-relational serious discussions you will list the number of such conversations you had, estimate the total amount of time they took, list the topics of the conversation and rate how you feel about that kind of interaction on this day. You should rate how you felt about each kind of interaction if there was an opportunity for such interaction even if it did not occur. Do not rate your feelings for each type of interaction if there was no possibility of them occurring, for instance, if your roommate has gone home for the weekend.

For relational discussions you should describe each conversation. Your description should include the topic of the discussion, its length, any agreements or decisions made, whether you feel that conflict was involved, and if so, how it was involved. Use as much paper as you need. Then, rate your feelings about all the relational discussions that day. Rate your feelings even if no discussions took place, if it was possible that they could have.

6. Your own sensitivity comes into play in part E. First note any factors <u>besides</u> your interaction with your roommate which could, in your opinion, affect your relationship. For instance, one of you may be very tense and edgy about a major midterm, or very depressed about receiving a "Dear John" letter. Then, note any other observations or comments that you feel are relevant. The only criterion in this part is whether you, the observer, think an item is important. Unanticipated observations are often the most worthwhile and important, so the observations noted in this section may well be the most valuable.

Daily Log Sheet

Date:_____ ID number:_____

A. How do you feel about your total relationship today?

good___:___:___:___:___:___:___: bad
tense___:___:___:___:___:___:___: relaxed
happy___:___:___:___:___:___:___: sad
unsatisfied___:___:___:___:___:___:___: satisfied

Estimate the amount of waking time you spent in the presence of your roommate

_____hours _____minutes

Describe any effort you made to be with or to avoid your roommate.

Describe any actions of your roommate that you feel were designed to be with or to avoid you.

B. Casual conversations

How many?_____How much time spent?_____hours_____minutes
List topics discussed:

How do you feel about these conversations?

good___:___:___:___:___:___:___: bad
tense___:___:___:___:___:___:___: relaxed
happy___:___:___:___:___:___:___: sad
unsatisfied___:___:___:___:___:___:___: satisfied

C. Serious discussions about nonrelationship issues
How many?_____How much time spent?_____hours_____minutes
List topics discussed:

Date _____ ID number _____

How do you feel about these discussions?

good___:___:___:___:___:___:___: bad
tense___:___:___:___:___:___:___: relaxed
happy___:___:___:___:___:___:___: sad
unsatisfied___:___:___:___:___:___:___: satisfied

D. Discussions about relational issues

For each such discussion describe what took place. Include the length and topic of the discussion. Use extra paper if necessary. Is this discussion related to a relational conflict?

2. How do you feel about the relational discussions that took place today:

good___:___:___:___:___:___:___: bad
tense___:___:___:___:___:___:___: relaxed
happy___:___:___:___:___:___:___: sad
unsatisfied___:___:___:___:___:___:___: satisfied

E. Note any factors outside your relationship that you think are likely to affect your relationship.

Other observations and comments:

REFERENCE LIST

REFERENCE LIST

Altland, J. & Kaplan, L. The roommate game: An exercise designed to encourage successful roommate relationships. Journal of College Student Personnel, 1983, 24, 268-269.

Altman, I. & Taylor, D. Social penetration: The development of interpersonal relationships. New York: Holt, 1973.

Archer, R. L. Role of personality and the social situation. In G. J. Chelune and Associates (Eds) Self-Disclosure: Origins, patterns, and implications of openness in interpersonal relationships. San Francisco: Jossey-Bass, 1979.

Ayers, J. Uncertainty and social penetration theory expectations about relationship communication: A comparative test. Western Journal of Speech Communication, 1979, 43, 192-200.

Babbie, E. R. The practice of social research. Belmont, CA.: Wadsworth, 1975.

Barclay, A. M., Crano, W. D., Thornton, C., & Werner, A. How to do a university. New York: John Wiley, 1971.

Baum, A., Shapiro, A., Murray, D., & Wideman, M. V. Interpersonal mediation of perceived crowding and control in residential dyads and triads. Journal of Applied Social Psychology, 1979, 9, 491-507.

Berg, J. H. Development of friendship between roommates. Journal of Personality and Social Psychology, 1984, 46, 346-356.

Berger, C. R. & Calabrese, R. J. Toward a developmental theory of interpersonal communication. Human Communication Research, 1975, 1, 99-112.

Birchler, G. R., Weiss, R. L., & Vincent, J. P. Multimethod analysis of social reinforcement exchange between maritally distressed and nondistressed spouse and stranger dyads. Journal of Personality and Social Psychology, 1975, 31, 349-360.

Blalock, H. M. Jr. Theory construction: From verbal to mathematical formulations. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

Block, J. D. Friendship. New York: Collier Books, 1980.

Blood, R. O. & Wolf, D. M. Husbands and wives: The dynamics of married living. Glencoe, Ill.: The Free Press of Glencoe, 1960.

Broder, S. N. Liking, own disclosure, and partner disclosure in female roommates. Journal of Social Psychology, 1982, 117, 303-304.

DeCoster, D. A. Effects of homogeneous housing assignments for high-ability student. Journal of College Students Personnel, 1968, 9, 75-78.

Doane, J. A. Family interaction and communication deviance in disturbed and normal families: A review of research. Family Process, 1978, 17, 357-376.

Duck, S. W. Personal relationships and personal constructs: A study of friendship formation. New York: John Wiley & Sons, 1973.

Ewing, J. A. A biopsychosocial look at drinking and alcoholism. Journal of the American College Health Association, 1977, 25, 204-208.

Fisher, B. A. & Beech, W. A. Content and relationship dimensions of communication behavior: An exploratory study. Western Journal of Speech Communication, 1979, 43, 201-211.

Folger, J. P. & Sillars, Al L. Relational coding and perceptions of dominance. Paper presented to the annual meeting of the Speech Communication Association, Washington, D. C., 1977.

Gehring, D. D. Prediction of roommate compatibility. Journal of College Student Personnel, 1970, 11, 58-61.

Girdano, D. D. & Girdano, D. A. College drug use: A five-year survey. Journal of the American College Health Association. 1977, 25, 117-119.

Glassman, J. B., Burkhart, B. R., Grant, R. D., & Vallery, G. G. Density, expectation, and extended task performance: An experiment in the natural environment. Environment and Behavior, 1978, 10, 299-315.

Gormley, F. P. & Aiello, J. R. Social density, interpersonal relationships and residential crowding stress. Journal of Applied Social Psychology, 1982, 12, 222-236.

Haley, J. Strategies of Psychotherapy. New York: Grune & Stratton, 1963.

Hall, J. A. & Taylor, S. E. When love is blind: Maintaining idealized images of one's spouse. Human Relations, 1976, 29, 751-761.

Hall, R. L. & Willerman, B. The educational influence on dormitory roommates. Sociometry, 1963, 26, 294-318.

Hammen, C. L. & Peters, S. D. Interpersonal consequences of depression: Responses to men and women enacting a depressed role. Journal of Abnormal Psychology, 1978, 87, 322-332.

Harper, J. M., Scoresby, A. L., & Boyce, W. D. The logical levels of complementary, symmetrical and parallel interaction classes in family dyads. Family Process, 1977, 16, 199-209.

Heath, D. H. Growing up in college: Liberal education and maturity. San Francisco: Jossey-Bass, 1968.

Heiss, J. S. Degree of intimacy and male-female interaction. Sociometry, 1962, 25, 197-208.

Hill, R. Decision-making and the family life cycle. In E. Shanas & G. F. Strieb (Eds.) Social structure and the family. Englewood Cliffs, N. J.: Prentice-Hall, 1965.

Hobart, C. W. Disillusionment in marriage and romanticism. Marriage and Family Living, 1958, 20. 156-162.

Homans, G. C. Foreward. In R. L. Burgess & T. L. Huston (Eds.) Social exchange in developing relationships. New York: Academic Press, 1979.

Jackson, D. D. The study of the family. Family Process, 1965, 4, 1-20.

Jacob, T. & Davis, J. Family interaction as a function of experimental task. Family Process, 1973, 12, 415-427.

Jourard, S. M. The transparent self. New York: D. Van Nostrand, 1964.

Kazalunas, J. R. Drinking among college students: A problem to bring out of the closet and meet head on in the 80's. College Student Journal, 1982, 16, 147-152.

Kenkel, W. F. Observational studies of husband-wife interaction in family decision-making. In M. B. Sussman (Ed.) Sourcebook in marriage and the family. Boston: Houghton Mifflin, 1963,

Knapp, M. L. Social intercourse: From greeting to goodbye. Boston: Allyn & Bacon, 1978.

Knapp, M. L., Ellis, D. C., and Williams, B. A. Perceptions of communication behavior associated with relationship terms. Communication Monographs, 1980, 47, 262-278.

Kozicki, E. A. The measurement of drinking problems among college students at a midwestern university. Journal of Alcohol and Drug Education, 1982, 27, 61-72.

Leopold, A. A sand county almanac with essays on conservation from Round River. San Francisco/New York: Sierra Club/Ballantine, 1966.

Levinger, G. Supplementary methods in family research. Family Process, 1963, 2, 357-366.

Lickorish, J. R. A behavioral interactional model for assessing family relationships. Family Process, 1975, 14, 535-557.

Looney, M. A. Alcohol use survey on campus: Implications for health education. Journal of the American College Health Association, 1977, 25, 204-208.

Lozier, G. G. Compatibility of roommates assigned alphabetically versus those assigned according to education goals or extracurricular plans. Journal of College Student Personnel, 1970, 11, 256-260.

Madison, P. Personality development in college. Reading, Mass.: Addison-Wesley, 1969.

Mark, R. Coding communication at the relationship level. Journal of Communication, 1971, 21, 221-232.

Marwell, G. & Hage, J. The organization of role-relationships: A systematic description. American Sociological Review, 1970, 35, 884-900.

McCord, J. & McCord, W. Cultural stereotypes and the validity of interviews for research in child development. Child Development, 1961, 32, 171-185.

Miller, G. R. & Steinberg, M. Between people: A new analysis of interpersonal communication. Chicago: Science Research Associates, 1975.

Miller, G. D. & Zoradi, S. D. Roommate conflict resolution. Journal of College Student Personnel, 1977, 18, 228-230.

Newcomb, T. M. The acquaintance process. New York: Holt, Rinehart & Winston, 1961.

Newcomb, T. M. The acquaintance process: Looking mainly backward. Journal of Personality and Social Psychology, 1978, 36, 1075-1083.

Newcomb, T. M. & Feldman, K. A. The impact of college on students. San Francisco: Jossey-Bass, 1969.

Newcomb, T. M. & Wilson, E. K. (Eds.) College peer groups: Problems and prospects for research. Chicago: Aldine, 1966.

Nudd, T. R. Satisfied and dissatisfied college roommates. Journal of College Student Personnel, 1965, 6, 161-164.

Olson, D. H. The measurement of family power by self-report and behavioral methods. Journal of Marriage and the Family, 1969, 31, 545-550.

Olson, D. H. Insiders' and outsiders' views of relationships: Research strategies. In G. Levinger and H. L. Rausch (Eds.) Close relationships: Perspectives on the meaning of intimacy. Amherst, Mass.: University of Massachusetts Press, 1977, (115-136).

Olson, D. H. & Rabunsky, C. Validity of four measures of family power. Journal of Marriage and the Family, 1972, 4, 224-234.

Pace, R. Roommate dissatisfaction in residence halls. Journal of College Student Personnel, 1970, 11, 144-147.

Peters, G. & Kennedy, C. Close friendships in the college community. Journal of College Student Personnel, 1970, 11, 449-456.

Phelen, D. J. & Hieck, J. D. Conflict management in residence halls: An organizational development approach. Journal of College Student Personnel, 1977, 18, 523-524.

Phillips, G. M. & Metzger, N. J. Intimate communication. Boston: Allyn & Bacon, 1976.

Pierce, R. A. Roommate satisfaction as a function of need similarity. Journal of College Student Personnel, 1970, 11, 355-359.

Rausch, H. L., Barry, W. A., Hertel, R. K., & Swain, M. A. Communication, conflict, and marriage. San Francisco: Jossey-Bass, 1974.

Reisman, J. M. Anatomy of friendship. New York: Irvington, 1979.

Reynolds, P. D. A primer in theory construction. Indianapolis: Bobbs-Merrill, 1971.

Rice, D. G. Dual-Career Marriage: Conflict and treatment. New York: The Free Press, 1979.

Riddy, D. M., Baum, A., Fleming, R., & Aiello, J. R. Mediation of social density by coalition formation. Journal of Applied Social Psychology, 1981, 11, 529-537.

Roby, T. B., Zelin, M. L. & Chechile, R. A. Matching roommates by an optimal indirect technique. Journal of Applied Psychology, 1977, 62, 70-75.

Rogers, L. E. & Farace, R. V. Analysis of relational communication in dyads: New measurement procedures. Human Communication Research, 1975, 1, 222-239.

Rubin, Z. & Shenker, S. Friendship, proximity, and self-disclosure. Journal of Personality, 1978, 46, 1-22.

Scanzoni, H. J. & Szinovacz, M. Family decisionmaking: A developmental sex-role model. Beverly Hills: Sage, 1980.

Scheidt, F. J. & Smith, M. E. Same-sex dyads and Toman's theory of birth-order compatibility. Psychological Reports, 1974, 34, 174.

Scheidt, F. J. & Smith, M. E. Birth-order compatibility and same-sex dyads: A replication. Journal of Social Psychology, 1976, 99 291-292.

Schuh, J. H. & Williams, O. J. The effect of birth order on roommate compatibility. College Student Journal, 1977, 11, 285-286.

Siegel, S. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill, 1956.

Sluzki, C. E. & Beavin, J. Symmetry and complementarity: An operational definition and a typology of relationships. In P. Watzlawick and J. H. Weakland (Eds.) The Interaction View. New York: Norton, 1977.

Spanier, G. B. Romanticism and marital adjustment. Journal of Marriage and the Family, 1972, 34, 481-487.

Steele, C. M. & Woods, L. Trait attributions and defense against insult from a dissimilar other. Journal of Research in Personality, 1977, 11, 318-328.

Steinmetz, S. K. The cycle of violence: Assertive, aggressive. and abusive family interaction. New York: Praeger Publishers, 1977.

Taylor, D. A. Some aspects of the development of interpersonal relationships: Social penetration processes. Journal of Social Psychology, 1968, 75, 79-90.

Tittler, B., Friedman, S. & Klopper, E. A system for tailoring change measures to the individual family. Family Process, 1977, 16, 119-121.

Triandis, H. C., Vassiliou, V., & Nassiakou, M. Three cross-cultural studies of subjective culture. Journal of Personality and Social Psychology, Monograph Supplement 8, 1968, 4, 1-42.

Tukey, J. W. Exploratory data analysis. Reading, Mass.: Addison-Wesley, 1977.

Turk, J. L. & Bell, H. W. Measuring power in families. Journal of Marriage and the Family, 1969, 31, 115-122.

Walden, T. A., Nelson, P. A. & Smith, D. E. Crowding, privacy, and coping. Environment and Behavior, 1981, 13, 205-224.

Waller, W. The rating and dating complex. American Sociological Review, 1937, 2, 727-734.

Walts, B. L. Individual differences in circadian activity rhythms and their effects on roommate relationships. Journal of Personality, 1982, 50, 374-384.

Weller, L. & Luchterhand, E. Comparing interviews and observations on family functioning. Journal of Marriage and the Family, 1969, 31, 115-122.

Werner, C. & Parmelee, P. Similarity of activity preferences among friends: Those who play together stay together. Social Psychology Quarterly, 1979, 42, 62-66.

Wetzel, C. G., Schwartz, D., & Vasu, E. Roommate compatibility: Is there an ideal relationship? Journal of Applied Social Psychology, 1979, 9, 432-445.

Wheaton, B. Interpersonal conflict and cohesiveness in dyadic relationships. Sociometry, 1974, 37, 328-348.

Williams, D. E. & Reilley, R. R. The impact of residence halls on students. Journal of College Student Personnel, 1972. 13, 402-410.

Wills, T. A., Weiss, R. L., & Patterson, G. R. A behavioral analysis of the determinants of marital satisfaction. Journal of Consulting and Clinical Psychology, 1974, 42, 802-811.

Winter, W. D., Ferreira, A. J., & Bowers, N. Decision-making in married and unrelated couples. Family Process, 1973, 12, 83-94.

Wish, M. & Kaplan, S. J. Toward an implicit theory of interpersonal communication. Sociometry, 1977, 40, 234-246.

Wolff, J. & Desiderato, O. Transfer of assertion-training effects to roommates of program participants. Journal of Counseling Psychology, 1980, 27, 484-491.