A Discourse Comparison of Antisocial and Well-adjusted Male Adolescent Peers:

Dyadic Analysis of Verbal Dominance, Submissiveness, and Agreement by Context

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Abstract

The interpersonal communicatory dynamics of verbal behavior were studied in an antisocial (n=20) and well-adjusted (n=20) sample of adolescent male dyads (ethnically diverse 16- and 17-year-old peers). Verbal dominance and submissiveness was measured using the Verbal Control Code and analyzed in conjunction with measures of verbal agreement utilized from the study of Piehler and Dishion (2006). Antisocial adolescent dyads were found to use significantly more verbal dominance and submission and less agreement across conversational contexts than their well-adjusted counterparts and a constant, non-adapting, level of interruptive efficiency. Findings suggest differences in the effortful maintenance of dominance and agreement behaviors across contexts in the two populations of youth studied. Further, appropriate adaptability to conversational contexts is thought to represent a prosocial ability and to be a component of verbal organization and social competence, here, significantly lacking in the antisocial youth measured. The disregard for changes in conversational context, in turn, inhibits a teen's ability to appropriately communicate and higher levels of organization in discourse have been found to be more prominent in well-adjusted populations than antisocial ones (Dishion, 2004). Limitations and suggestions for future research are noted. Particularly, further study involving analysis of friendship dynamics and effects of speech duration in differing contexts would be worthwhile.

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A Discourse Comparison of Antisocial and Well-adjusted Male Adolescent Peers:

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Research has unveiled some fundamental differences between antisocial and well-adjusted youth (Healy & Bronner, 1948; Davis & Cropley, 1976). Considering acts that can be pinned to the individual, the most common distinctions are found in delinquent behavior and drug use, (Elliott, Huizinga, & Ageton, 1985; Kandel, 1973), academic performance (Goydke & Specht, 1976; Trzesniewski et al., 2006), and aggressive and violent behaviors (Marsee et al., 2005; Bischoff, 1993; Justice, Justice, & Kraft, 1974). Interactively, delineations arise in the prevalence of rejection from non-deviant peers (Coie & Kupersmidt, 1983; Dishion, 1990; Dodge, 1983), association with deviant peers (Elliott, Huizinga, & Ageton, 1985), quality and type of friendships (Dishion, Andrews, & Crosby, 1995), and of interest in the current study and underreported in the empirical domain is the content and organization of verbal interpersonal communicatory processes (Dishion, Nelson, Winter, & Bullock, 2004). The current study is interested in distinguishing antisocial and well-adjusted youth by their ability to adapt aspects of normative discourse from one conversational context to another.

Much like the formalistic talk of institutional interactions such as those between doctors and patients, interviewers and applicants, or students and teachers, everyday conversation brings to its interlocutors a set of preconceptions and expectations (Talbot, 1998). Institutional talk is understood as having a preconceived level of asymmetry between speakers and listeners (Itakura, 2001). Based on the historical and functional utility of one's position in an institutional interaction, expectancies of how much one should talk, listen, know, and transmit varies predictably. In turn, one individual is put in

control of the interaction as an effect of their role, but not necessarily in a position of dominance.

A higher level of symmetry is expected in everyday conversation. The projected source of asymmetries between conversational partners no longer comes from formal structured interactions but rather, from individual differences related to social, contextual, and other factors. Asymmetries lead to perceptions of dominant and submissive relationships in everyday interpersonal communication. Everyday talk is surely most prevalent among friends and correspondingly, there is an expected level of informality in everyday conversations (Drew & Heritage, 1992). Without the formalized organizational backing like that of institutional interactions, everyday talk has a characteristically heavier reliance on social skills for guidance through conversational contexts. Conversely, contextual changes in formal interactions are generally guided by a member of an institution (i.e. a doctor, teacher, or therapist). The ability of peers to appropriately adapt conversation from one context to the next is a skill and takes a special type of adaptability and social cognizance. These vital social skills used to interact and communicate, are in conformity with the values of one's society (Isobe et al., 2004), and crucial to obtain throughout development in order to live prosocially.

Adolescents that have delays when compared to their peers' normative social development and display deficits in the social sphere unquestionably experience social repercussions for their deficiencies and seek others of similar descent. In fact, by middle childhood, antisocial children already prefer the company of antisocial and rejected peers, regardless of whether those friendships are by choice or by default from the upshot of peer rejection (Cairns & Cairns, 1991; Dishion, Patterson, Stoolmiller, & Skinner, 1991).

While antisocial kids seem to prefer each other's company, one can imagine the synergy and symbiosis of the projected social ramifications. For many years theorists have considered social skills to primarily develop in childhood friendships (Piaget, 1954; Hartup, 1983) and according to Patterson (1982) and Patterson, Reid, and Dishion (1992) antisocial behavior disrupts the development of prosocial skills and consequently stunts social competence. Thus, if individuals who lack adequate social skills pool together, coupled with inexperience and immaturity, it seems that these antisocial youth may not inevitably attain a successfully functioning combination of social skills or tolerable social cognizance (Cauce, 1986) unless interventions are set in place.

While it is obvious that the upset of normative social development is related to a plethora of problem behaviors in adolescence, at the base of many of these problems is the inability to appropriately and adequately communicate. Indeed, antisocial youth misread cues, overreact to ambiguous provocations, and disrupt peer activities (Moffit, 1993; Patterson, 1993). Antisocial behavior is partially based on the negligence and lack of consideration for others (Patterson, Reid, & Dishion, 1992) and it is plausible that these behaviors are evident, reflected, and quantitatively measurable in discourse. By comparing well-adjusted and antisocial youth on elements of verbal behavior, instantiations of courtesy and consideration for others is measurable, providing insight to the verbal processes of youth whose social skills are lacking. In the designation of antisocial behavior the effect an adolescent's behavior has on others is imperative to note. Notwithstanding, trends in verbal and behavioral consideration of others should be consistently lacking for populations of antisocial youth when compared to their well-adjusted counterparts.

A multitude of social skills are implicitly strewn in an ordinary conversation such as opening and closing conversations, taking turns, initiating and negotiating topic of conversation, identifying participants (Carroll, 2004) and using appropriate portions of things like gestures, posture, eye contact, voice projection, voice tone, and fluidity of speech. Therefore conversational analysis might provide insight to the social cognizance of interlocutors. Accordingly, the existence or prevalence of antisocial behavior should also be related to the social skills involved in conversational ability (Spence, 1981). Further, quantitative elements of speech should be reflected in differences in context if speakers are socially skilled and adaptable in discourse.

Verbal Dominance and Submissiveness

Verbal communication gives some insight into the interpersonal processes of peers (Dishion, Nelson, Winter, & Bullock, 2004). Not only does it give insight to organizational tenets of communication but it taps into processes involved in grander social processes (Faraone & Hurtig, 1985). In the current study measures of verbal dominance and submissiveness were employed in order to analyze the intricate components of verbal communicatory processes between adolescent friends. Interpersonal dominance is a dynamic, situationally contingent social skill (Burgoon, 2000). Thus, dominance and submission processes in discourse are sensitive to context and provide information about the processes involved with interacting, opposing, competing or related entities (i.e. peers). Also important to note is that friends share "common ground" (Clark, 1996), or an awareness that each friend knows that they share information. Without this basis of peer interaction, contextual considerations of discourse would be difficult to interpret.

Relativity. Specifically pertinent to studies of verbal dominance is the existence of a submissive counterpart. Hence, dominance and submissiveness are components of interpersonal relationships and dominance can only be seen in relation to relative submissiveness of other members engaged in interaction (Burgoon, 2000). Much of the previous literature evaluating dominance is focused primarily on dominant behavior-expressing individuals and not those who express submissiveness. It is implicit that there will be submissive individuals succumbing to dominant ones and this implication is acknowledged in most studies but not operationally defined or quantitatively measured. The current study attempts to mitigate this fissure of the field and includes unsuccessful dominance attempts and submissive acts in its measures.

Context. Imperative to any discourse analysis is mindfulness of contextual considerations. The operationalization of context is ill-defined in the literature of discourse analysis, particularly in studies of verbal dominance, however, the concept is clearly abound. What Hartup (1993) refers to as components of "setting" in the analysis of conflict between peers closely resembles the theory of the current study in terms of contextual consideration in discourse. Sex, age, friendship measures, reputation, and several other variables were considered. Furthermore, in the analysis of dominance behavior in discourse, setting (Nohara, 1993) and aspects of context (James & Clarke, 1993) were considered important components of discourse analysis. Authors of both studies indicated that gender differences in interruptions arose depending on aspects of discourse such as supposed competition, formality, or casualness. And in a critical review of studies on interruptions in conversational interaction, James and Clarke (1993)

elucidate the conversational dynamics that would conceivably lead to understanding the true meaning of interruptions:

> "Only an analysis which takes into account the larger context in which
> the interruption takes place, including the semantic content of the
> interruption, the general trend and content of the conversation up to that
> point, and the relationship between the participants--is likely to
> ascertain adequately the role which an interruption was intended to
> perform."

Authors of the current study utterly agree with James and Clarke and move to extend their projections and view, as context, essentially all conditionally variable circumstances that make a particular interaction unique. These circumstances help to clarify the meaning of differences observed in discourse, especially between different types of speakers (i.e. interlocutors that differ on antisocial behavior expression). We have alleviated purported major influences of contextual variants in conversation by only analyzing discussion between close male friends in a controlled setting. And with the heritage of friendship comes the assumption of similar social statuses between conversational partners. Nevertheless, parents' income was measured for each participant as well. In the current study the only major change between contexts is the topic introduced. The contextual considerations of mundane discourse and the relativity of dominant and submissive interpersonal verbal acts (here, occurring in everyday speech) cover the major considerations of the collected variables of the current study.

Factors of the Current Study

Interruptions. Interruptions are possibly the most popularly analyzed aspect of verbal dominance, most often coupled with analysis based on status and gender (Bilmes,

1997; Drummond, 1989; Murray, 1985; Redeker & Maes, 1996; Zhao & Gantz, 2003).

Interruptions are attractive to researchers because of their noticeability and salience in

normative speech and their direct association with dominant behavior (Mast, 2002b).

The downfall of this commonality is that there is considerable variance in the

operationalization of interruption and not usually any defining processes associated with

submissiveness. In the current study all interruptive attempts were recorded. The

success or failure of an attempt delineated whether or not it was considered a form of

dominance. It has been generally assumed that a successful interruption presents a much

clearer manifestation of dominance than an unsuccessful one (Smith-Lovin & Brody,

1989; Kollock, Blumstein, & Schwartz, 1985). In fact, unsuccessful interruptions

represent the clearest form of verbal submissiveness in the current study.

Interruptive attempts aimed at taking the floor of the conversation are disruptive

to fluid speech and represent assertions at taking the floor of the conversation when it is

already held by another. With these assertions, despite level of success, come

assumptions that the interrupter doesn't care to hear what else the interruptee's statement

entails. Further, the interrupter is also assumed to believe that their ideas, at least at that

particular point in time, are more important or are more appropriately contributory to the

conversation (Mischler & Waxler, 1968). Clearly these attempts at taking the floor of the

conversation present asymmetries in the interpersonal perceptions of the interlocutors and

with the loss of symmetry in perceived conversational contribution comes elements and

perceptions of attempts at dominance and subsequently, submission (Octigan &

Niederman, 1979). Antisocial kids are assumed to have less astute social cognitive

processing capabilities (Dodge, 1997) and perhaps more negligence for others' feelings

than their well-adjusted counterparts. Since halting interruptive processes, listening, and appropriately responding seemingly reflect prosocial conversational habits, one might assume that there might be differences in the use of interruptions by antisocial status. Further, it might also be posited that if antisocial youth have less respect for changes in conversational context, they might be less adaptable and show similar interruptive behaviors regardless of context.

Assent. Assent is an exemplar of listening and attentional capacities and is distinct from but similar to what are called supportive and cooperative speech acts. The essential ingredient of these speech acts is that they are not disruptive. That is, although they may overlap with another's speech, they do not function as direct means to gain the floor of the conversation. Supportive or cooperative speech acts have also been called back-channel utterances and back-channel responses. These speech acts are designated by their function of support, agreement, interest, or cooperation and may or may not overlap with another's speech. Assent, on the other hand, is also designated by its function of the aforementioned tenets but does not occur in speech overlap. Assent is only recorded after a period of silence from another speaker (Piehler & Dishion, 2006).

Measures of assent were implemented in order to analyze processes in adolescent discourse related to listening and cooperation in discourse. Assent is not a measure of submissiveness but rather, reflects cognizance of the importance of verbal agreement in conversation and instantiates interest in and care for a speaker's words. Assent likely contributes more to well-adjusted youth's discourse.

Topic Control (on- and off-topic). Topic control is a relatively common measure for dominance in discourse (Fallon and Guo, 1994; Itakura, 2001; Okamoto and Smith-

Lovin, 2001) however, no studies to date have measured it in the way that the current study has. Topic control was measured based on a contingent relationship between each member of a dyad. If one peer initiated a topic the other must follow in order for that individual to be considered in control. Control of both on and off-topic discussion was analyzed. A relative measure of submissiveness is rated as the amount of time not in-control for an individual, thus, the amount of time another initiated a topic and a peer followed. Verbal dominance was thought to be expressed by controlling conversational topics, regardless of whether discourse was on or off-topic. However, since measures are at the level of the dyad, control of off-topic discussion was thought to be more prevalent in antisocial teens' discourse.

Hypotheses

The central goal of the current study was to distinguish verbal differences in the ways that antisocial and well-adjusted youth organize discourse around a manipulated contextual factor, namely, differing types of discussion. Considering the aforementioned social deficits thought to be characteristic of antisocial youth and the connectedness of general social cognizance and social factors thought to be enveloped in dominance and submission in discourse, we hypothesized that:

1. Antisocial youth will commit more successful interruptions than well-adjusted youth in both contexts.

2. Both groups will use more successful interruptions in the context about drug beliefs than in the context concerning self-disclosure and problem-solving.

3. Antisocial youth will commit more unsuccessful interruptions than well-adjusted youth in both contexts.

4. Antisocial youth will use fewer assents than well-adjusted youth in both contexts.

5. Antisocial youth will speak off-topic more and consequently, on-topic less than well-adjusted youth during the context concerning self-disclosure and problem-solving and not during the context about drug beliefs.

6. Both groups will use more unsuccessful interruptions in the context about drug beliefs than in the context concerning self-disclosure and problem-solving.

7. Antisocial youth will interrupt more efficiently than well-adjusted youth in both contexts.

<div align="center">Method</div>

Participants

This study employed the use of pre-existing data from Project Alliance, collected under a University of Oregon protocol in a large Pacific Northwest Metropolitan area of the U.S. Project Alliance served as an intervention to families for early onset deviant behavior in middle school children. The total sample entailed 998 sixth-graders from three middle schools and their families, targeted by relation of their respective middle school to elevated arrest rates in proximal neighborhoods. These sixth-grade students represent a 95% recruitment rate and the first of several waves of data collection. For a detailed description of the original recruitment procedures see Dishion, Nelson, & Kavanagh (2003). These students and their families will provide data for Project Alliance for several years, ultimately leading to at least wave six (age 16-17), where the current study has drawn a sub-sample of 40 male dyads for analysis.

Group Designation

Antisocial behavior scores. Based on antisocial behavior scores computed for every participant in the original study, a trichotomous group designation was developed based on self-reported antisocial behavior and substance use (Dishion, Nelson, & Kavanagh, 2003) from ages 11-17. Participants were identified as early-starter, late-starter, or successful. The current study utilized only the polar ends of antisocial behavioral expression from the sample, making use of the early-starters and successful groups.

Early-starters. Members of the early-starter group (20 male dyads) reported antisocial behavior scores above the median at all six waves of assessment. Furthermore, all members of this classification have been arrested. Of this group 50% were European Americans, 27.5% African Americans, 5% Latino, 2.5% Asian Americans, 2.5% Native American, and 12.5% other ethnic combinations and had a median annual household income of $30,000 to $39,000.

Successful group. Members of the successful group (20 male dyads) reported antisocial behavior scores below the median at all six waves of assessment and the lowest summed antisocial behavior scores across all waves. No members of the successful group had ever been arrested and maintained a current GPA of 2.0 or higher. Of this group 65% were European Americans, 12.5% African Americans, 10% Asian Americans, 5% Native American, 2.5% Latino, and 5% other ethnic combinations and had a median annual household income of $40,000 to $49,000.

Procedures and Measures

　　　Peer interaction task. All participants, at 16-17 years of age, took part in a videotaped interaction task with a self-nominated friend. Each participant brought their same-sex friend into the lab for a 45-minute, videotaped discussion covering a wide array of topics. The Peer Interaction Task (PIT) was designed to elicit a large range of interactive behaviors within the dyad, and similar procedures were used in Dishion et al. (1995). In the original collection of data under Project Alliance, eight different topics were discussed for five minutes each, separated by the interviewer's introduction of the proceeding topic. The topics entailed: I. planning an activity together, II. A current problem of the participant, III. A current problem of the participant's friend, IV. Drug use, V. Goals for the next year, VI. Friends and peer groups, VII. Dating, and VIII. Planning a party. The current study utilized three of the eight topics: II, III, and IV and are referred to hereafter as task 1, 2, and 3, respectively. These were selected because they were thought to represent a distinctness of contextual difference between personal problems-solving tasks and topics open for opinion. In task 1 and 2, all dyads were subjected to the following instructions:

> "This time I'd like the two of you to talk about a current problem that
>
> Bob identified a few minutes ago, (i.e. -"who should be friends with
>
> you"). Bob, please talk about why this is a problem and then if you've
>
> tried to solve it, what you did, and if it worked. Then talk with Bill
>
> about ways you might solve the problem and any ways that Bill can
>
> help. You'll have five minutes for this discussion. Here are cards to
>
> guide your discussion."

This task was repeated after task 1, switching to a problem noted by the other member of the dyad (task 2) so that each peer had a chance to discuss his problem of choice. Self-

disclosure is expectedly elicited from this context. Also there is more structure in the

instructions for this task than for the proceeding one. Dyads are not only asked to talk

about specifically nominated problems, but they are both asked to attempt to solve them.

In task 4 all dyads were subjected to the following instructions:

> "For the next five minutes please talk about your beliefs about drinking
>
> alcohol and using tobacco, marijuana, and other drugs. Please talk
>
> about each one separately. If you think that use is appropriate for
>
> people your age, please say why, and in what settings it is appropriate
>
> to drink alcohol, use tobacco, marijuana and other drugs. And again,
>
> please talk about each separately. Here is a card to guide your
>
> discussion. Any questions?"

This task was thought to represent the conversational context of expressing opinions

about an open topic. This topic is thought to be less complex and less structured than the

previous context. Expressing beliefs is not a highly cognitively or emotionally taxing

endeavor compared to the prior problem-solving, self-disclosing context. The only

contextual difference between context 1 (task 1 and 2) and context 2 (task 3) was thought

to be type of discussion, with other posited contextual variants being constant.

Researchers often present participants with topics that will likely elicit

confrontational discussion and disagreements in order to analyze aspects of dominant

language such as the interruption (Kollock, Blumstein, & Schwartz, 1985). It seems as if

researchers that conduct such research are attempting to educe dominant speech in

normative verbal communication by fast-forwarding conflictive interpersonal processes.

However, the current study is concerned primarily with the analyzation of normative

processes in interpersonal communication between peers and no such procedures were

induced.

Interviews and Questionnaires

Annual assessment took place for Project Alliance via interviews and questionnaires completed by the youth, parents, and peers. For a detailed description of the interview, intervention and assessment procedures for the original and ongoing data collection for Project Alliance, see Dishion et al. (2003).

Within the battery of questionnaires that each participant of every dyad was given, a set of questions pertained to the amount that the dyads agreed or disagreed on various topics. An average measure of agreement on all issues was used in the current study as a correlational aid to assist interpretation of the relationship between verbal agreeing, dominance, and submissive variables in discourse. Likewise, the current study made us of a similar measure, representing the total difference in agreement scores between members of a dyad. This score represents the amount of supposed disagreement in a dyad.

Videotaped Observations

Assent. Assent was utilized from the study of Piehler and Dishion's (2006) where a larger sub- sample of the same data set was used. Dyads were measured for mutuality and deviant talk in their interactions and assessed in accordance to relative development of antisocial behavior. Assent is described by Piehler and Dishion (2006) as a verbal agreement or acknowledgment of a comment of another. In a healthy verbal exchange, assent is used to show support, concern, and/or one's attention. Assent is not believed to be a critical component of verbal dominance or submissiveness, but rather an indicative marker of conversational and social competence thought to be especially enveloped in

well-adjusted youth. For analysis the values of assent for each member of a dyad were joined, creating a dyad score.

Verbal Control Code

The Verbal Control Code (VCC) was developed to extend work done with the Peer Process Code in Dishion et al.'s 2004 work which was concerned with understanding the interpersonal process of close friendships. The PPC measured verbal, nonverbal, and physical behaviors of the interpersonal processes of close friendships. The VCC delves into the reciprocities of dominant and submissive behaviors and couples the theory of the verbal component of the PPC.

The VCC was developed specifically for this study in order to analyze verbally dominant and submissive acts committed by male adolescent dyads. All codes were designed to capture only verbal communication between members of each dyad and to enable designation of individuals and dyads that express relatively more dominant or submissive verbal behavior. Each participant was coded on elements of dominance and submissiveness based on the following variables: successful interruptions, unsuccessful interruptions, on-topic control, and off-topic control. Only one individual per dyad is eligible to be in control and all conversation is coded as either on- or off-topic based on the instructions of an assessor. Interruptive attempts occurred throughout discussion.

Behaviors were recorded by hand on a categorized template and later converted to electronic format with strict caution for data entry errors, mitigated by cross-coder double- and triple- checking of all entries.

Who has the floor? The floor of the conversation was considered to be the time and space where only one individual was speaking and the other was assumed to be

listening. The literature on discourse analysis reveals an absence of extensive

examination of entire speech acts where conversational turns include the perception of

the speaker and listener (James & Clarke, 1993). Further, the concept and existence of

conversational turns is well understood but not well defined objectively (Goffman, 1976;

Goffman, 1981). Also, there has been no well-defined, explicit definition of "floor"

(Tannen, 1993), leading authors of the current study to default to basing turns and floor

tenure on the assumed presumptions of the speakers and listeners. If one participant in a

dyad is talking the other is assumed to be listening. Not talking or not attempting to

interrupt designates someone as the listener if the other is speaking. When neither

participant was talking, no one had the floor and no one was having a turn at

conversation. At the moment that speech is overlapping, the floor is at stake and the

submissive or dominant acts by the already-speaking dyad member and the interrupter

will demarcate appropriation of the floor thereafter.

    Successful Interruptions. In order to scrutinize speech overlap between members

of each dyad, the projected intentionality and level of success of asserted attempts was

coded. A successful attempt at taking or regaining the floor of the conversation was

considered a successful interruption. If a peer yielded to the interruption of another and

allowed them to speak by discontinuing their current statement, despite whether or not

the incoming statement was a complete sentence, it was considered a successful

interruption. Moreover, after the onset of simultaneous speech, if the statement of the

"interruptee" ended before the statement of the "interrupter", it was considered a

successful interruption. Successful interruptions can be complete sentences or

incomplete sentences, as long as the peer being interrupted discontinues his current

statement. A decision rule for designation of successful interruptions noted that any

overlapping speech that was not intended to take the floor of the conversation would not

be considered an interruptive attempt (see Appendix A for more detail). A successful

interruption is thought to be a clear form of dominance in discourse (Kollock, Blumstein,

& Schwartz, 1985; Natale, Entin, & Jaffe 1979). For analysis the values of all successful

interruptions for each member of a dyad were joined, creating one cumulative score for

each dyad.

Unsuccessful Interruptions. An unsuccessful interruption was deemed a failed

attempt at taking or regaining the floor of the conversation. Unsuccessful interruptions of

a peer were coded only in relation to the response of the other peer. Unsuccessful

interruptions included any attempts of a peer to interject into the current statement of the

other peer *and* the peer already talking did not discontinue speech to yield to the

incoming statement (see Appendix A for more detail). A failed attempt at taking the

floor of the conversation indicates a submissive act to the dominance of an individual

who maintains the floor of the conversation. Further, unsuccessful expression via an

unsuccessful interruption is a form of *noticeable* verbal submission, housed among

innumerable submissive and dominant communicative subtleties unbeknownst beyond

the dyad (Smith-Lovin & Brody, 1989). For analysis the values of all unsuccessful

interruptions for each member of a dyad were joined, creating one score for each dyad.

Are we on-topic? On-topic Discussion includes any statement that is intended to

be contributory to continuing discussion of the topic presented by the assessor. Off-topic

discussion includes any statements not relevant to the topic presented at the beginning of

the task. Only one member of each dyad was considered to be in control of the topic.

Since topic control was based on topic initiation, an in-control peer need not necessarily continue to talk to be in control of a topic. Further, control of a topic by an individual designated the dyad as either on- or off-topic, of which only one could be selected at any point in time. For an individual to be in control of a topic (either on- or off-topic) they must have initiated a topic and the other peer must have responded with a consequent statement, have laughed or expressed other vocal expressions, assented, or there must have been at least 10 seconds of silence. If the non-initiating peer didn't respond this way, then the initiating peer was not in control of the topic.

Control of both on and off-topic discussion was analyzed. A relative measure of submissiveness is rated as the amount of time not in-control for an individual, thus, the amount of time another initiated a topic and a peer followed. Exact coding protocol for change in topic control from on- to off-topic or vice versa and from one peer to the other is noted in greater detail in Appendix A. For analysis the duration values of dominant and submissive topic-control variables for each member of a dyad were joined. And thus, scores of on- and off-topic discussion duration were thought to represent the effort each dyad exerted to follow the instructions of the assessor.

Reliability

Interrater reliability was randomly assessed by choosing a subset of peer interactions for independent observers to code. Because we used videotapes, observers were unaware of which session was being used for reliability or of the group classification of the dyad. Observers were also blind to the hypotheses of the study. Furthermore, observers were unaware of their status as a calibrator or reliability. Reliability was very high for all four divisions of interaction: on-topic discussion (91.5%

agreement), off-topic discussion (96.2% agreement), successful interruptions (93.6%

agreement), and unsuccessful interruptions (95.7% agreement). Reliability (86%) for

measures of assent were included in an amalgamated measure of interrater agreement for

all ratings in the study by Piehler & Dishion (2006).

<div align="center">Results</div>

Correlations

We performed an initial set of correlations in order to analyze the relationships

between each of the verbal agreement, submission and dominance variables (see

Appendix B). Correlations represent overall values for both groups. Assent showed a

strong positive correlation with on-topic discussion, r=.502, p<.001, showing that the

more a dyad engaged in on-topic discussion, the more agreeing language they also used.

On the contrary, a strong negative correlation between assent and off-topic discussion

was present, r=-.483, p<.001. Assent also showed moderate negative correlations with

interruptive attempts, r=-.311, p=.57, and successful interruptions, r=-.320, p<.05. This

indicates that agreeing behaviors in speech decrease as interruptions increase.

Additionally, since interruptive attempts entail all successful and unsuccessful

interruptions and there was no significant correlation between assent and unsuccessful

interruptions, it appears that assent is more strongly associated with a rise in interruptive

attempts that successfully take the floor.

Assent also showed a moderate correlation with a self-reported measure of

difference in agreement on all issues, r=-.362, p<.05. This indicates that dyads with high

disagreement overall use fewer assents in conversation. A similar measure of dyad topic

agreement described the average a dyad agreed on all topics rather than the difference

between each member's beliefs. This measure was moderately correlated with successful

interruptions, r=.-318, p=.058, and not assent, indicating that dyads with high general

agreement on all issues interrupt each other less but don't necessarily use more agreeing

language.

Verbal Agreement, Dominance, and Submission Variables

Task 1 and 2 are considered to be the same context and are in primary comparison

with task 3. All results represent dyadic analysis, where members' scores in each dyad

were converged. All effects and trends are thus at the level of the dyad and differences

between individuals are not represented here.

Assent. We performed a repeated measures analysis of variance (ANOVA) to

analyze assent frequency by group across three conversational tasks. A highly significant

effect of task ensued, $F(1,36)= 7.7$, $p=.009$, indicating that assent use differed depending

on which task it was (see figure 1 below). A group effect neared significance, $F(1,36)=$
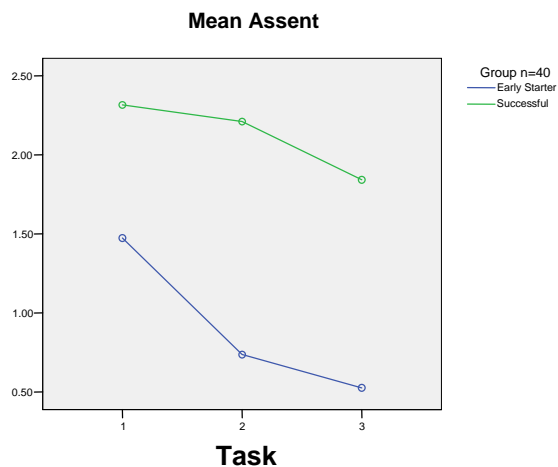
2.83, $p=.101$.

Figure 1. *Assent frequency by group and task 1, 2, and 3.*

An additional noteworthy difference is that between groups as they move from task 1 to task 2. Between task 1 (M=1.5, SD=1.5) and task 2 (M=.74, SD=.81) the antisocial group showed a steep decline in the use of assent; a decline of about 50%. Since both tasks were considered part of the same context, this drop is considered an effect of the duration of the context. Well- adjusted youth showed little to no reduction in the use of assent between task 1 (M=2.3, SD=2.9) and task 2 (M=2.2, SD=4.1). Antisocial and well-adjusted youth (M difference= .21 and .36 respectively) showed similar decline in the use of assent as context changed from task 2 to 3.

     Successful Interruptions. We utilized a repeated measures analysis of variance (ANOVA) to measure the number of successful interruptions, by group, that both members of a dyad used to successfully take control of the floor across three 5-minute tasks. A highly significant linear trend, $F_{(1,38)}$= 8.79, p=.005, and a moderately significant quadratic trend was revealed, $F_{(1,38)}$= 5.23, p<.05, across the tasks. Both groups showed a steady increase in interruptions from task 1 and 2 to task 3. This indicates a difference in the use of successful interruptions based on conversational context. A near significant effect of group was revealed, $F_{(1,38)}$= 3.41, p=.073, showing a moderate difference in the amount of successful interruptions between well-adjusted and antisocial youth (see Figure 2 below).
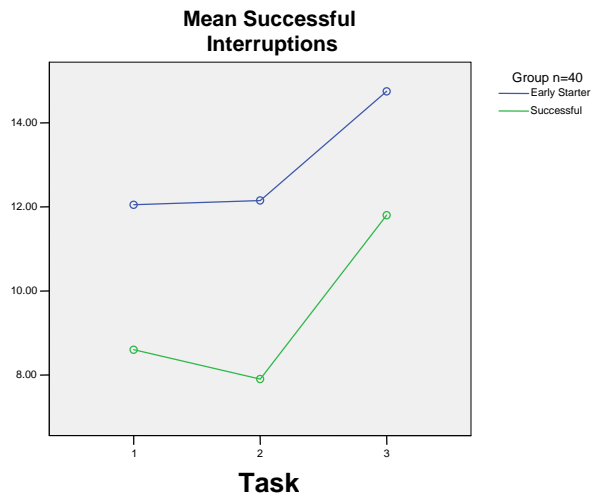
Mean Successful Interruptions

Figure 2. *Successful interruptions by group and task 1, 2, and 3.*

Unsuccessful Interruptions. We performed a repeated measures ANOVA to measure the number of unsuccessful interruptions, by group, where either member of a dyad attempted and failed to successfully take control of the floor across three 5-minute tasks. No group differences ensued but there was a significant interaction between task and group, $F(1,38)= 6.02$, p=.019, indicating that there was a greater difference in the failure of interruption between the groups depending on the task (see Figure 3 below). During tasks 1 and 2 (M=4.4, SD=3.3) well-adjusted youth unsuccessfully interrupted as equally as they did in task 3 (M=4.4, SD=2.6), showing no increase. Antisocial youth showed a large increase in unsuccessful interruptions from task 1 and 2 (M=5.0, SD=2.6) to task 3 (M=7.2, SD=6.2), indicating that they exerted more interruption attempts that did not ultimately lead to control of the floor (which is different than control of the topic) as context changed compared to their well-adjusted counterparts.
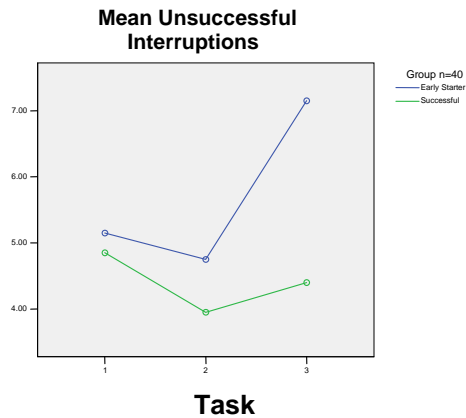
Mean Unsuccessful Interruptions

Group n=40
— Early Starter
— Successful

Task

Mean Unsuccessful Interruptions

Group n=40
— Early Starter
— Successful

Context

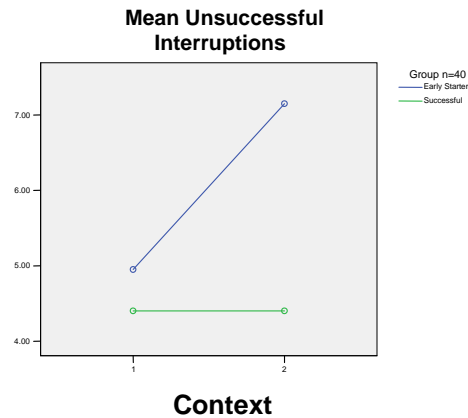 Figure 3. *Unsuccessful interruptions by group and task 1, 2, and 3..*

Figure 4. *Unsuccessful interruptions by group and context 1 and 2.*

To better illustrate the group trends in unsuccessful interruptive attempts by context, task 1 and 2 (context one) were averaged and compared with task 3 (context two) (see Figure 4 above). Clearly, antisocial youth showed a steep incline in the number of unsuccessful interruptions (M difference= 2.2) when compared to their well-adjusted counterparts (M difference= 0.0), leading to a near significant effect of task, $F_{(1,38)}= 3.42$, $p=.07$.

Interruptive Attempts. We utilized a repeated measures ANOVA to measure the total number of interruptive attempts by each dyad. A combination of all successful and unsuccessful interruptions comprised this measure, which was examined by group across three 5-minute tasks. A highly significant linear trend, $F_{(1,38)}= 10.16$, $p=.003$, and a moderately significant quadratic trend, $F_{(1,38)}= 6.47$, $p=.015$, were revealed, indicating that the dyads differed in interruptive attempts across the tasks. Namely, both groups increased overall interruption attempts when discussion turned from being about solutions to personal problems to beliefs about drug use. A group effect neared significance, $F_{(1,38)}= 2.99$, $p=.091$ (see Figure 5 below).
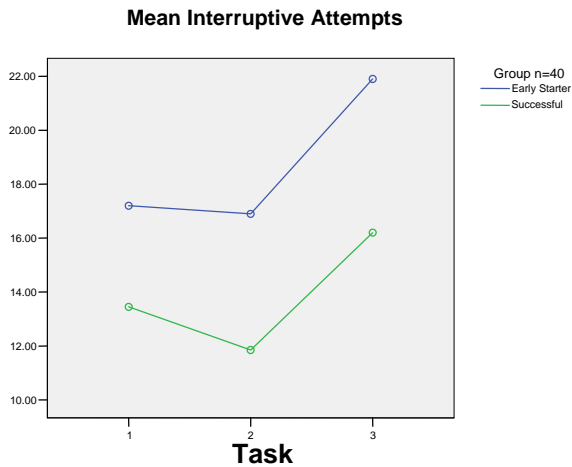
Mean Interruptive Attempts

Figure 5. *Total interruptive attempts by group and task 1, 2, and 3*.

Interruptive Efficiency. The total number of unsuccessful interruptive attempts

was subtracted from the total number of successful interruptions, creating an equilibrium

where a value of zero represents an equivalent number of successful and unsuccessful

interruptive attempts. Any value above zero represents a higher prevalence of successful

than unsuccessful interruptive attempts. We performed a repeated measures ANOVA to

measure the efficiency of interruptive attempts by group across the three conversational

tasks (see Figure 6 below). A significant effect of task was revealed, $F_{(1,38)} = 4.26$,

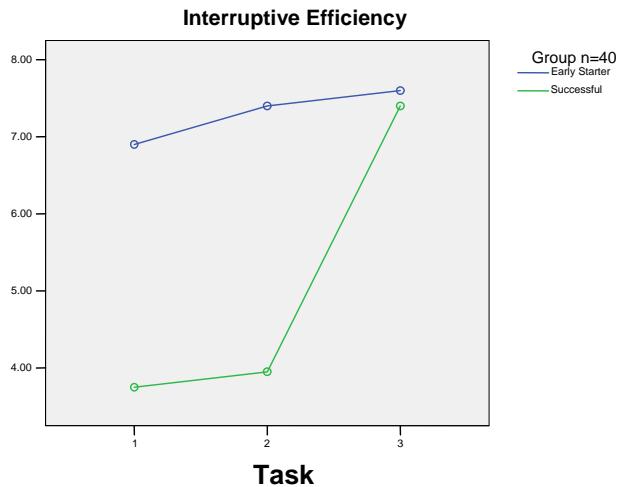$p = .046$, indicating a difference in efficiency based on task.

Figure 6. *Interruptive efficiency by group and task 1, 2, and 3*.

A group effect neared significance, F(1,38)= 2.78, p=.104. Antisocial youth seem to be consistently efficient across the three tasks and both contexts, where well-adjusted youth sharply increase efficiency from the first to second context. This indicates that well-adjusted youth alter their use of verbally dominant and submissive behavior based on the context of the conversation. This trend shown by the well-adjusted youth resulted from the significant increase in successful interruptions (see Figure 2 above) with no increase in unsuccessful attempts (see Figure 3 and 4 above) from task 1 and 2 (context 1) to task 3 (context 2); the interruptive ratio changed.

Topic Control. The authors utilized a repeated measures ANOVA to analyze the differences between groups for control of off-topic discussion across the three tasks. A highly significant effect of task was revealed linearly F(1,38)= 28.36, p<.001, and quadratically, F(1,38)= 10.98, p=.002, indicating that groups differed in the amount of off-topic discussion engagement depending on task (see Figure 7 below). Since all

discussion was labeled as either on- or off-topic, results from analysis of on-topic

discussion revealed an exact inverse relationship of the results attained from analysis of

off-topic discussion, at an equivalent level of significance, $F(1,38)= 31.78$, $p<.001$ and
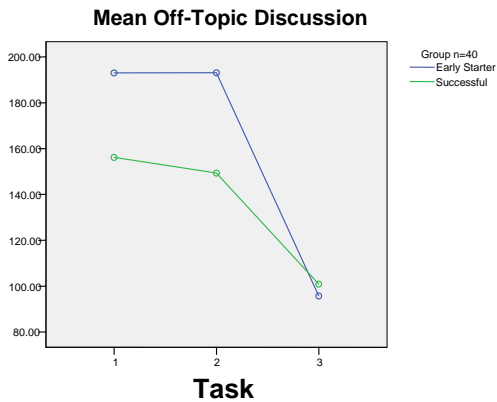
$F(1,38)= 12.94$, $p<.001$, respectively.

Figure 7. *Off-topic discussion.*
by group and task 1, 2, and 3.
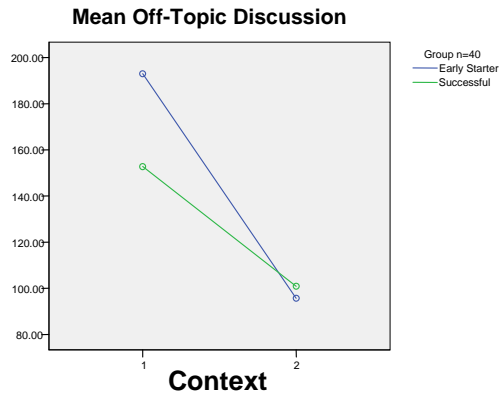
Figure 8. *Off-topic discussion.*
by group and context 1 and 2.

To better illustrate the group trends in topic control by context, task 1 and 2

(context 1) were averaged, and compared to task 3 (context 2) (see Figure 8 above). A

repeated measures ANOVA revealed a highly significant effect of context, $F(1,35)=$

42.01, $p<.001$, indicating that well-adjusted dyads engaged in significantly less off-topic

discussion than their antisocial counterparts during context one. A near significant

interaction between task and group also ensued, $F(1,35)= 3.9$, $p=.056$ indicating a

difference in topic control by context depending on which group is engaged in discussion.

On-topic and off-topic data from three well-adjusted dyads were not included in

analysis. In task 1 and 2 (context 1) participants were instructed to discuss and attempt to

solve an identified problem for each individual and at least one member of each of the removed dyads had no identified problem to discuss.

Discussion

The ability to adapt one's discourse to context is an organizational social skill and it was posited that antisocial youth would show deficiencies in this arena. Contextual considerations entail things like gender, status, and age of each interlocutor, the type and topic of discussion, familiarity with one's conversational partner, measured and perceived status of each individual in conversation, age, friendship measures, reputation of each speaker, aspects of conversation topics including competition, formality, or casualness in discourse, and any other circumstance that makes discussion different because of its inclusion. Literature of antisocial youth extensively covers the shortfalls of various sets of behaviors and the social shortcomings these youth seem to exude. Moreover, social skills involved in everyday conversations should be deficient in in this population of youth**.**

In the current analysis of verbal dominance, submission, and listening behaviors between antisocial and well-adjusted youth, several interesting differences arose, ostensibly as an effect of either consistency across or adaptation to conversational contexts. In general, these factors varied predictably by group and context, indicating that discourse analysis proves useful in understanding considerations and organization of adolescent discourse. Hypotheses 1 through 5 proved to be accurate; antisocial youth committed more successful interruptions than well-adjusted youth in both contexts. Both groups used more successful interruptions in the substance use discussion context than in the problem solving and self disclosure context, antisocial youth committed more

unsuccessful interruptions than well-adjusted youth in both contexts, antisocial youth used fewer assents than well-adjusted youth in all tasks, and antisocial youth spoke off-topic more and consequently, on-topic less than well-adjusted youth during the problem solving and self disclosure context and not during the substance use discussion context.

Hypothesis 6 stated that both groups would use more unsuccessful interruptions during the substance use discussion context and not during the problem solving and self-disclosure context. Contrary to the hypothesis, well-adjusted youth did not differ in the prevalence of unsuccessful interruption attempts between contexts when antisocial youth did. Additionally, based on the theorized heightened level of dominant and submissive behavior in antisocial youth, hypothesis 7 stated that antisocial youth would interrupt more efficiently than well-adjusted youth. That is, in ratio, successful interruptions in accordance to unsuccessful interruptions would be constant. Nevertheless, this turned out to be untrue as well because of the effect of differences in unsuccessful interruptions. Therefore, interruptive efficiency varies across levels of antisocial behavior.

How efficiently adolescents interrupt in varying contexts seems to be an underlying distinction between antisocial and well-adjusted populations. Antisocial youth vary in the amount that they interrupt based on the designated contexts but they interrupt with a consistent level of efficiency. They showed a sharp spike in successful *and* unsuccessful interruptions from context one to context two and seem to put forth the same energy to interrupt despite the conversational context while well-adjusted dyads became significantly more efficient at interrupting when talk was about beliefs and not when about solving personal problems. The well-adjusted group showed a substantial increase in efficiency from the first context to the next, indicating great adaptability to

context for interruptive efficiency. They only showed a spike in successful interruptions

and no increase in unsuccessful interruption attempts.

Perhaps well-adjusted teens are less likely to successfully interject into a peer's

discourse than antisocial youth, especially when problem-solving personal topics. It

seems that prosocial teens are simply interrupting more appropriately, thus, not when

they are disclosing personal information and supposed to be working on solving personal

issues. Furthermore, maybe well-adjusted youth take personal issues and problem-solving

activities more seriously and are more interested in reaching goals of such discourse as

was reflected in more on-topic discussion. Perhaps more goals have been set and

achieved in their lives and it seems more plausible to them that they can talk about a

problem and find a resolution. It is surely prosocial to not interrupt a peer when he is

disclosing personal information and when the goal of the task is to address and solve a

real personal issue.

Dishion et al (2004) found that, based on contingency analyses of dyadic

communicatory processes, antisocial youth's discourse was rated significantly higher on

scores of entropy, indicating that their conversations were highly unpredictable and

disorganized relative to their well-adjusted counterparts. This couples the theory of the

current study and furthers the likelihood that the observed differences in discourse were

indeed attributable to organizational social skills reflected in the adaptability to

conversational contexts.

In conversation, antisocial youth exude relatively more dominant verbal behaviors

and thus force others into submission, especially when the expected level of control is

unknown (i.e. when interruptive attempts are high). If a teen has no idea when they will

be getting the floor back, they are reduced to unsubstantial topics, often structured just on

the fact that one's acts might extend the deviance of another's and since normative kids

seem to have more structure in their conversations (and more filling topics), there is thus

less need for and ultimate expression of dominant verbal behaviors. Furthermore, in the

scope of characteristic antisocial traits and their effects on others, interruptions neglect

the social and verbal space of others (Octigan & Niederman, 1979). Attempts at

interruption and other dominance assertions might even be interpreted as aggressive in

communication and antisocial youth are likely to demonstrate greater frequency of

aggressive acts, and are more likely to perceive others' acts as aggressive. Dodge and

Schwartz (1997) go into greater depth of the social processing of aggression in antisocial

youth, however, not in the scope of dominance and submissiveness in interaction, which

might be meritable for future research.

The greatest limitation of the current study was low sample size. Most predicted

trends produced results in the anticipated direction but maybe with a larger sample size

differences would be more distinct and of higher statistical significance. A possible

limitation of the current study's methods is that in task 1 and 2 (discussing a problem of

the TC and then of the PEER) there may have been problems staying on topic for well-

adjusted youth in particular. This may be attributable to the fact that the teens' problems

are chosen from a preset list. It might be that well-adjusted kids simply have less severe

and abundance of problems like the one's that are offered as topics of conversation. This

presents a conceivably interesting interaction between self-disclosure and life problems

when considering antisocial status. Antisocial teens seem to have more problem

behaviors and troubles at home, school, and in society in general, but talk about these problems less than their well-adjusted counterparts.

Another possible limitation of the current study lies in the theorization of emphasizing an atypical elevated refinement of contexts in discourse analysis. A study of this nature plausibly increases typical limits on generalizability. However, because we are controlling many aspects of the context here, we are able to better observe specific differences related to the two groups. Further, comparitively the greatest representation of antisocial behavior is found within the population of adolescent males and is manifested in their friendships (Dishion, 1995). Therefore, this particular sample of adolescents serves the literature well.

Perhaps future research might explore average speech duration in accordance with interruptive behaviors because it is likely that interruptions elicit short-natured speech. Further, the amount of interrupting in a dyad might be signaled by a designated person's topic of conversation. Thus, a later study might record who is in control of a topic when various listening, dominance, and submission variables are measured. This would be a great first step to bring analysis from that of the dyad to individual comparison. Perchance, individual variance in verbal dominant, submissive, and agreement behavior would be as insightful as that produced by dyads. Then contingency analysis between topic control and various discourse variables could ensue. Furthermore, each dyad represented a close peer relationship where members are likely familiar with each other's speech patterns, of similar or same demographics (i.e. SES), and are familiar with each other's beliefs. Thus, analysis in conjunction with friendship characteristics such as quality might be particularly useful as well.

While non-significant, analysis of context 1 (task 1 and 2) results indicated a trend towards a function of time across the duration of context one. There was a longer duration of context one (two tasks equaling 10 minutes of self-disclosure and problem-solving) than context two (one task equaling 5 minutes of belief expression) and the antisocial group used less agreement while the well-adjusted group used less verbal dominance (and thus less submissiveness too). Therefore, higher-maintenance, effortful processes in discourse seem to break down over time in antisocial and well-adjusted youth's interactional dynamics. I think this indicates that antisocial youth get "tired" of agreeing and well-adjusted get "tired" of maintaining dominance behavior and that antisocial youth spend considerable energy on keeping dominance processes functioning across contexts while well-adjusted kids focus more on important things like staying on topic. This was also reflected in the aforementioned observed differences in interruptive efficiency. Moreover, dyadic member speech duration is associated with verbal dominance (Mast, 2002a) and might provide further insight into the breakdown of verbal agreement and dominance organization over time. Further exploration of this "time effect" with larger sample sizes would be worthwhile.

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Appendix A

Verbal Control Code

A System for Coding Verbal Dominance and Submission
In Interpersonal Communication

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2005-2006

VERBAL CONTROL CODE
Introduction & Table of Contents – A guide to using this coding manual

Participant Designations:
      TC (in capitals only)- dyad member on the left
      PEER (in capitals only) - dyad member on the right
      peer (s) - refers to either member of the dyad, specified in context

The Peer Interaction Task (PIT):
      There are 8 tasks. Each task takes five minutes to complete, during which the
      assessor is not present. During transition periods and/or while the assessor is
      present, no codes will be entered. Coding will begin promptly after the assessor
      shuts the door as he/she leaves the room. Coding will stop promptly after there is
      a knock on the door, which initiates a transition period when the assessor enters
      the room to give instructions for the next task or for comments and questioning
      after the last task.

Table of Contents:

ASSESSOR INSTRUCTIONS

TASK 1:

[Knock on the door; door opens]

"This time I'd like the two of you (or here: ...now I'd like the two of you) to talk about a current problem that Bob identified a few minutes ago, i.e. -"who should be friends with you". Bob, please talk about why this is a problem and then if you've tried to solve it, what you did, and if it worked. (or here: ..."who should be friends with you") and your problem is, Then talk with Bill about ways you might solve the problem and any ways that Bill can help. You'll have five minutes for this discussion. Here's your cards." (or here: are there any questions?) [Door shuts]

Coders: Identify and write down EXACTLY what the topic is that the two are supposed to be talking about. This will define on or off topic discussion. Coders can brief one another prior to viewing the session about what will considered on or off topic discussion for the designated topic.

TASK 2:

[Knock on the door; door opens]

"This time I'd like the two of you (or here: ...now I'd like the two of you) to talk about a current problem that Bob identified a few minutes ago, i.e. -"who should be friends with you". Bob, please talk about why this is a problem and then if you've tried to solve it, what you did, and if it worked. (or here: ..."who should be friends with you") and your problem is, Then talk with Bill about ways you might solve the problem and any ways that Bill can help. You'll have five minutes for this discussion. Here's your cards." (or here: are there any questions?) [Door shuts]

Coders: Identify and write down EXACTLY what the topic is that the two are supposed to be talking about. This will define on or off topic discussion. Coders can brief one another prior to viewing the session about what will considered on or off topic discussion for the designated topic.

TASK 3:

[Knock on the door; door opens]

"For the next five minutes please talk about your beliefs about drinking alcohol and using tobacco, marijuana, and other drugs. Please talk about each one separately. If you think that use is appropriate for people your age, please say why, and in what settings it is appropriate to drink alcohol, use tobacco, marijuana and other drugs. And again, please talk about each separately. Here is a card to guide your discussion. Any questions?"

[Door shuts]

Coders: The designated topic is clearly stated. This will define on or off topic discussion. Coders can brief one another prior to viewing the session about what will considered on or off topic discussion for this topic.

OPERATIONAL DEFINITIONS OF
VERBAL DOMINANCE AND SUBMISSION VARIABLES

On-Topic Discussion

If the discussion pertains to the TC or the PEER *and* is relevant to the designated topic as presented by the assessor, it will be considered on-topic. If the discussion pertains to an individual that is not the TC or the PEER *and* is relevant to the topic, it will be considered on-topic. On-Topic Discussion includes any statement that is intended to be contributory to continuing discussion of the topic presented by the assessor. To be relevant to the topic of the task, discussion must pertain directly to the topic or be a tangent that pertains to the topic. Various tangents from a designated topic can still be considered on-topic discussion.

Examples:

1. The topic is about addressing a problem of the TC. The problem designated by the TC is completing homework on time. If the peers are talking about specific topics that contribute to difficulty in completing homework on time, such as an influential friend that causes them to put homework aside, discussion will noted as being on-topic. Also, if the peers engage in discussion on a tangent of that individual, such as the demeanor of that individual that causes them to put homework aside like being "pushy", discussion will be coded On-Topic. See "Non examples" for discussion that will not be considered On Topic for this example.

Non Examples:

1. (From example above) If the peers engage in discussion on a tangent of the individual that inhibits the TC from completing homework on-time that is not relevant to the topic, discussion will be noted as being off-topic. An example of such a tangent would be if the peers began to talk about specific characteristics of the individual that are not relevant to the TC not being able to complete homework on-time, such as how the individual did not go to school for 4 days in a row because he/she faked being sick. The peers were still talking about the individual that influenced the TC to not be able to complete homework on-time but they were not talking about that individual in relation to the topic (a problem of the TC- timely homework completion).

Decision Rules:

During tasks 2 and 3 (problem of the TC and Problem of the PEER) any statements identifying that the other peer has similar/same problems (as person that task is oriented for) is still ON topic. However, any discussion further than mere mention, aka embellishment on one's own topic when the topic is supposed to be about the other peer, is OFF topic. ALSO, if peer 1's mere mention of his own topic is not similar to that of the other peer (who the task is oriented toward) it will be considered off topic. For example, if the topic for peer 1 is problems spending money and peer 2 says, "yeah dude, my grandma just bought me this sweet jacket." It will be considered OFF topic discussion.

Talk of how to structure the discussion is ON topic (i.e. "we should talk about this first and then…")

<u>Off-Topic Discussion</u>

Includes any statements not relevant to the topic presented at the beginning of the task. If the discussion pertains to the TC or the PEER *and* is not relevant to the designated topic, it will be considered off-topic. If the discussion pertains to an individual that is not the TC or the PEER *and* is not relevant to the topic, it will be considered off-topic. Off-Topic Discussion includes any statement that is not intended to be contributory to continuing discussion of the topic presented by the assessor. To be irrelevant to the topic of the task, discussion must not pertain directly to the topic *or* be a tangent that does not pertain to the topic. Various tangents from a designated topic can be considered on or off-topic discussion, depending on the relatedness to the topic of the task.

Examples:

1. The topic is about addressing a problem of the TC. The problem designated by the TC is completing homework on time. If the peers are engaging in discussion that is not relevant to the ability of the TC to complete homework on time, the peers are engaging in off-topic discussion. See On-Topic Discussion Non Examples for a specific example of Off-Topic Discussion.

Decision Rules:

Any references/questions of the time-limit of the tasks will be considered off-topic.

During task 3 (beliefs about drugs) talk about an instance of personal use is OFF topic. Disclosure of use or talk of how often one uses is ON topic as long as it relates to their beliefs about drugs.

Topic Control

Only one peer will be in control of a topic at any given time and they will be designated as either on or off topic. The peer in control will have the floor of the conversation. See further instructions in the following sections.

Intrapersonal On and Off-Topic discussion change: (change of on/off topic discussion within a peer)

A peer already in control may change topic to on/off if the other peer responds with a consequent statement or other responses listed below.
- laughing or other vocal expressions
- assent
- 10 seconds of no talk

Interpersonal On and Off-Topic discussion change: (change of on/off topic discussion between peers)

The aim of On and Off-topic discussion is to capture which peer brings the conversation on and/or off task the most often and who maintains control of the topic. After the door shuts and the assessor is not present, the first utterance made by either peer will be credited to that peer as either on or off topic. The comment can be on or off-topic and is credited to the peer that made the comment. Each topic change (on or off) thereafter will be coded and be credited to the peer that made the comment.

When a peer makes a comment that is on-topic during off-topic discussion or off-topic during on-topic discussion, he/she is responsible for the shift in on or off-topic discussion. The peer responsible for the on or off-topic discussion shift will be considered "in control" of the conversation or as "having the floor". BUT in order for a peer to be considered "in control" of the conversation, the statement he/she makes must be followed by a statement from the other peer that is concurrent with the topic change. Otherwise, the conversation remains in the previous state.

Examples:

1. If the TC has made the first comment during the task and it happens to be on-topic, the TC is "in control" of the conversation and the dyad is engaged in on-topic discussion. If the PEER follows with an off-topic comment and the TC responds with an off-topic comment, the PEER is now "in control" of the conversation.

2. References to Assessor Instructions:

If a peer refers to the instructions given by the assessor or the parameters in which the conversation is supposed to be within during off-topic discussion initiated by the other peer, the peer will be coded On-Topic, In-Control if the response of the other peer is consequent with the change.

3. Dyad is engaging in off-topic discussion.
   Peer 1, "Oh yeah, we aren't supposed to talk about appearance."
   Peer 2, "Oh yeah, you're right."
   Peer 1 is coded In-Control, On-topic.

Non Examples:

    1. (From example above) However, if Peer 2 responds with an off-topic comment and continues to talk about off-topic issues, Peer 2 is still in control of the conversation.

    Either peer can be "in control" of the conversation when the discussion changes to on or off-topic.

    Guideline: If all comments were meshed together and one could not label any comments as being from the PEER or the TC, on and off-topic switches would still be distinguishable.

Decision Rules:

    If topic discussion begins before the door is shut at the beginning of a task, the time will be recorded as beginning at the same time as the task. Whichever element of discussion (ON or OFF topic) is being held as the door shuts is the element that will be recorded as having been initiated at the same time as the task.

Successful Interruption - (A successful attempt at taking or regaining the floor of the conversation.)

checklist-
       1. A peer attempts to speak during the current statement of the other peer.
       2. The interrupter must be seen as attempting to take the floor of the
conversation.
       3. He continues to speak once the other peer has stopped speaking.

       If a peer yields to the interruption of another and allows them to speak by discontinuing their current statement, despite whether or not the incoming statement is a complete sentence, it will be considered a successful interruption. Moreover, if the statement of the "interruptee" ends before the statement of the "interrupter", it will be considered a Successful Interruption. Successful Interruptions can be complete sentences or incomplete sentences, as long as the peer being interrupted discontinues his/her current statement.

Decision Rules:
       Any supportive statements of statements of validation will not be considered attempts at taking the floor of the conversation. Even when these types of statements overlap with the other peer's speech, it will not be graded by success of interruption.

<u>Unsuccessful Interruption</u> - (A failed attempt at taking or regaining the floor of the conversation.)

checklist-

1. A peer attempts to speak during the current statement of the other peer
2. The interrupter must be seen as attempting to take the floor of the conversation.
3. The other peer does not yield to the incoming statement.

The interrupter's statement ends before that of the interuptee.

Unsuccessful interruptions of a peer will be coded only in relation to the response of the other peer. Unsuccessful Interruptions include any attempts of a peer to interject into the current statement of the other peer *-and-* the peer already talking does not discontinue speech to yield to the incoming statement. There may be multiple unsuccessful interruptions from a peer within a single statement of the other peer. Most unsuccessful interruptions will be noted by utterances that are of short duration and are likely to be unfinished sentences as well. However, a complete statement (finished sentence) spoken by peer 1, while peer 2 is talking, will be considered an unsuccessful interruption if peer 2 does not discontinue speech *while* peer 1 is talking. The statement does not have to be short-natured or incomplete to be considered an unsuccessful interruption. If the speech of the "interrupter" ends before the speech of the "interruptee" it will be considered an Unsuccessful Interruption.

Decision Rules:

Any supportive statements of statements of validation will not be considered attempts at taking the floor of the conversation. Even when these types of statements overlap with the other peer's speech, it will not be graded by success of interruption.

Indistinguishable speech from peer 1 during the speech of peer 2 is considered an unsuccessful interruption. HERE, be sure that the speech is absolutely indistinguishable and that the statement isn't actually an "mm hmmm" or "uh huh" (assent, validating) for example.

DECISION RULES

1. Only code what we can hear; DO NOT extrapolate or infer.

2. For peer 1 to successfully take control of a topic, peer 2 MUST follow peer 1's statement with one of the following:
- a statement concurrent with the topic change
- laughing or other vocal expressions
- assent
- 10 seconds of no talk

3. Validating and supportive statements that overlap another peer's speech are not considered attempts at taking the floor of the conversation and are disregarded as interruption attempts i.e. "really…", "it is", "yeah I know", yeah, fo real", "hmmm", "mm hmmm". ALSO, laughing and assent are not considered attempts at taking the floor of the conversation.

4. Indistinguishable speech from peer 1 during the speech of peer 2 is considered an unsuccessful interruption. HERE, be sure that the speech is absolutely indistinguishable and that the statement isn't actually an "mm hmmm" or "uh huh" (assent, validating) for example.

5. Any references/questions of the time-limit of the tasks will be considered off-topic.

6. During tasks 2 and 3 (problem of the TC and Problem of the PEER) any statements identifying that the other peer has similar/same problems (as person that task is oriented for) is still ON topic. However, any discussion further than mere mention, aka embellishment on one's own topic when the topic is supposed to be about the other peer, is OFF topic. ALSO, if peer 1's mere mention of his own topic is not similar to that of the other peer (who the task is oriented toward) it will be considered off topic. For example, if the topic for peer 1 is problems spending money and peer 2 says, "yeah dude, my grandma just bought me this sweet jacket." It will be considered OFF topic discussion.

7. During task 3 (beliefs about drugs) talk about an instance of personal use is OFF topic. Disclosure of use or talk of how often one uses is ON topic as long as it relates to their beliefs about drugs.

8. If topic discussion begins before the door is shut at the beginning of a task, the time will be recorded as beginning at the same time as the task. Whichever element of discussion (ON or OFF topic) is being held as the door shuts is the element that will be recorded as having been initiated at the same time as the task.

9. Talk of how to structure the discussion is ON topic (i.e. "we should talk about this first and then…")

Appendix B

Correlations

		TOTAL Off-topic discussion	TOTAL On-topic discussion	TOTAL Successful interruption	TOTAL Interruption attempts	TOTAL as each dyad	TOTAL me on all issue	TOTAL difference agreement on all issue
TOTAL Off Discussion	Pearson	1	-.991*	.002	-.028	-.483*	-.227	.155
	Sig. (2-ta		.000	.991	.872	.003	.204	.390
	N	37	37	37	37	35	33	33
TOTAL On Discussion	Pearson	-.991*	1	.032	.050	.502*	.269	-.157
	Sig. (2-ta	.000		.844	.758	.001	.113	.359
	N	37	40	40	40	38	36	36
TOTAL Su Interruptio	Pearson	.002	.032	1	.968*	-.320*	-.318	.103
	Sig. (2-ta	.991	.844		.000	.050	.058	.549
	N	37	40	40	40	38	36	36
TOTAL Int attempts...	Pearson	-.028	.050	.968*	1	-.311	-.304	.176
	Sig. (2-ta	.872	.758	.000		.057	.072	.304
	N	37	40	40	40	38	36	36
TOTAL as dyad	Pearson	-.483*	.502*	-.320*	-.311	1	.070	-.362*
	Sig. (2-ta	.003	.001	.050	.057		.684	.030
	N	35	38	38	38	38	36	36
TOTAL me on all issu	Pearson	-.227	.269	-.318	-.304	.070	1	-.009
	Sig. (2-ta	.204	.113	.058	.072	.684		.960
	N	33	36	36	36	36	36	36
TOTAL dif agreemen	Pearson	.155	-.157	.103	.176	-.362*	-.009	1
	Sig. (2-ta	.390	.359	.549	.304	.030	.960	
	N	33	36	36	36	36	36	36

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).