

ISSA Proceedings 2006 - Displaying Reasonableness: Developmental Changes In Two Argument Practices



Introduction

Democratic theorists hold that the ability to engage in deliberation is a political virtue (Bohman, 2000; Elster, 1998; Fishkin & Laslett, 2003; Gutmann & Thompson, 1996; Macedo, 1999). Being able to deliberate over problems and differences to emerge with a consensus about how to live presumably involves a range of rhetorical understandings and skills. However, such rhetorical knowledge and skills have only been given lip service by deliberation theorists. As James Bohman puts it, “For all the talk of deliberation among democratic theorists, few tell us what it actually is” (2000, p. 24).

The purpose of this essay is to begin to address this need in deliberation scholarship by examining two argument practices and capabilities that deliberators use to display their reasonableness in social interactions: (a) the capacity to elaborate a basis for one’s standpoint, and (b) the capacity to align one’s own argument with others’ expressed views. After developing a rationale for these two ways of displaying reasonableness, two studies are reported which test the claim that there are developmentally-related differences in each way of displaying reasonableness.

Displaying Reasonableness in Deliberative Discourse

Dialogical Mechanisms in Deliberation

Bohman (2000) has proposed an account of the “actual processes” of public deliberation, which he defines as dialogue that attempts to overcome a problematic situation by solving problems or resolving conflicts. To be convincing deliberators engage in interaction in ways that secure “uptake” and produce “practical effects” on interaction participants (Bohman, 2000, p. 34). Bohman proposes five specific dialogic mechanisms that he believes promote deliberation in social interaction. A first dialogue mechanism is for speakers to “make explicit

what is latent" in their common understandings and joint activities. By providing explicit justifications for ongoing practices and interpretations, speakers provide clarity to their "shared" ideas and principles (2000, pp. 59-60). Speakers also benefit from engaging in back and forth exchanges about their biographical experiences. The outcome of this second dialogue mechanism is not mere listening, but making accessible life histories so they can be incorporated into the ongoing joint framework of understanding and norms.

Another dialogical mechanism concerns the use of "discourses of application," as speakers make explicit how they are applying a given norm to the concrete and immediate situation. Deliberation benefits from speakers' providing detailed descriptions of the situation that help make particular norms appear relevant and applicable. Deliberation also benefits from a "discourse of articulation," as speakers propose concrete ideas that integrate their viewpoints. Articulation creates a framework in which social norms grow more complex over time as speakers modify their beliefs or goals to integrate competing values.

A final dialogue mechanism is the use of perspective-taking and role-taking. Considering alternative perspectives as well as different moral vocabularies and visions can broaden the perspectives that are built in deliberative discourse. Capacities for role-taking and perspective-taking are called upon as individuals with different perspectives take turns being addressed to and answerable to others.

In sum, while there are probably a variety of dialogue mechanisms involved in deliberative interactions, Bohman believes that these five are used to facilitate thorough deliberation.

Argument Practice #1: Expressing an Elaborated Basis for one's Standpoint

Common to Bohman's dialogic mechanisms is the need for deliberators to display their reasonableness as they interact with each other. By displaying reasonableness, arguers manage the interpretations of evidence and reasoning that are constructed in deliberative discourse, which can facilitate their mutual understandings (Taylor, 1992). One type of reasonableness appears to involve speakers making transparent their desires, values and reasoning and articulating what norms and principles are considered relevant in the situation. One general argument capability may simply be the ability of arguers to make explicit their reasons and reasoning in such a way that an elaborated perspective of each participant's standpoint is presented, sufficient for the purposes at hand.

Two lines of research provide empirical support for the expectation that providing an elaborated basis for one's standpoint is a developmental achievement. One line of research comes from constructivist communication theory (O'Keefe & Delia, 1982, 1988). As children mature their persuasive arguments become more differentiated and listener-adapted, in ways that parallel children's developing ability to engage in social perspective-taking (e.g., Clark & Delia, 1976, 1977; Delia & Clark, 1977; Delia, Kline & Burleson, 1979; Kline & Clinton, 1998; Kline & Oseroff-Varnell, 1993). Within the same age group persons with more complex social cognitive systems also produce persuasive arguments that are more differentiated and listener-adapted (e.g., Delia et al., 1979; Kline, 1988, 1991; see the reviews of Kline & Delia, 1990, and Burleson & Caplan, 1998). While the coding systems that measure listener-adaptedness and person-centeredness do not assess the precise feature of elaborating the speaker's argumentative basis, the coding systems do differentiate between those speakers who use unelaborated reasons and those who employ elaborated code assumptions and broader perspectives in their arguments (Bernstein, 1974; Mead, 1934). Hence, based on constructivist communication research one would expect age-related increases in the ability to provide an elaborated basis for one's standpoint.

A second line of research which supports the view that providing an elaborated basis for one's standpoint in argument is a developmental achievement comes from science education. These researchers are pinpointing the discourse features of classroom environments that facilitate conceptual change in students' scientific knowledge. Engle and Conant (2002), for instance, have documented the discourse features that foster "productive disciplinary engagement." By encouraging and giving students the authority to take on intellectual problems, and by insisting that students' intellectual work be accountable to disciplinary norms, fifth graders' interest and mastery of scientific concepts is nurtured. Engle and Conant (2002) consider student accountability to mean that students are engaged in a number of argument practices in their classroom discussions, such as including evidence to justify their claims, explicitly connecting evidence to their claims, and explicitly referring to the concept of evidence. When fifth graders were given the resources to solve an interesting controversy, their discourse displayed a beginning use of evidence in scholarly ways, with over half the discussion turns containing some form of evidence. Yet only 19% of their turns used evidence-claim connectors, and only 27% referred to the concept of evidence (Engle & Conant, 2002).

In sum, following Bohman's ideas and these empirical lines of research, we might

expect that providing an elaborated basis for one's standpoint in a controversy is a developmental achievement. Given the developmental trends in perspective-taking in persuasive as well as negotiation situations (e.g., Clark & Delia, 1977), the hypothesis advanced here is simply that there are age-related increases in providing an elaborated basis for one's standpoint (called here elaborated argument basis, or perspective-giving). The aim of the first study is to test this hypothesis, with children of three different age groups in the context of behavioral disputes:

H1: There is an age-related increase in children's ability to provide an elaborated basis for their standpoints in behavioral disputes.

Argument Practice #2: Aligning One's Argument with Others' Views

Besides expressing an elaborated basis for one's standpoint, a second argument practice that may also be a developmental achievement is that of aligning one's argument with others' views. Argument alignment utilizes the coordination communication process to display the way participants' views can be integrated together and fitted to the interactional situation. Bohman (2000) points out that a discourse of articulation in deliberation involves making one's position detailed in ways that incorporate others' viewpoints. The ability to propose integrative solutions to social conflicts develops only gradually; Robert Selman's (e.g., 1981; Selman, Beardslee, Schultz, Krupa, & Podorefsky, 1986) extensive research on social negotiation shows that the ability to take a societal perspective is associated with the use of integrative negotiation strategies, and occurs typically after the use of appeasement, simple bargaining and compromising strategies.

Several other lines of research support the claim that aligning one's argument with others' viewpoints is a developmental achievement. Argumentative discussion has been examined by Berkowitz and his colleagues in analyses of moral development (Berkowitz & Gibbs, 1983, 1985). Berkowitz regards the ability to engage in moral discussion important for developing democratic skills and that moral discussions can be analyzed for discussants' attempts to compare, contrast, contradict, or integrate their standpoints with others' views. "Transacts" are statements that involve reasoning about another's reasoning as one attempts to understand or resolve differences in standpoints. Berkowitz and Gibbs (1985) identified 19 types of transacts in college student moral discussions, with some transacts summarizing or clarifying viewpoints, and other transacts extending, refining, critiquing, or integrating each other's reasoning (called operational transacts). Their work shows that the incidence of transacts in peer discussions

over moral issues increases with age during adolescence, and that the use of operational transacts is associated with greater sophistication in discussion partners' level of moral reasoning (Berkowitz & Gibbs, 1985; Berkowitz, Oser, & Althof, 1987). However, age-related increases in transacts have not been consistently reported (Kruger, 1992; Santolupo & Pratt, 1994), and in longitudinal work Walker and Taylor (1991) found that children's moral reasoning development was not facilitated by adults' use of critical challenging operational transacts, but by a parental discussion style that is supportive and collaborative (also see Santolupo and Pratt, 1994).

The conflicting findings on transacts in moral discussion can be reconciled with constructivist communication theory (O'Keefe & Delia, 1982, 1988), which would hold that transacts do not have to be challenging and hostile if supplemented, integrated, or enacted in ways that preserve positive relationships and confer positive images on discussants. Given that transacts are also communicative acts, they necessarily create relationships and identities, too (Kline, 1987). Hence one aspect of argument alignment is the identity and relationships that are created by the reasoning enacted in one's arguments. Constructivist research findings suggest that this and other types of argument alignment might be a developmental achievement. For instance, as children mature they become better able to identify objections to their viewpoints and come up with refutations to those objections (Delia et al., 1979). Moreover, those with higher levels of interpersonal cognitive complexity are also more likely to produce messages in behavioral regulation situations that explicitly coordinate the message recipient's views with the speaker's view (Kline, 1991).

The other line of research that would support the claim of developmental change in argument alignment comes from the research on science education practices. Engle and Conant (2002) discovered that one important aspect of helping students be accountable to each other in science discussions is for them to directly associate their views with others' views, and for them to evaluate the credibility of others' views. Similarly, a series of qualitative case studies by Emily van Zee, James Minstrell and their colleagues (e.g., van Zee, 2000; van Zee, Hammer, Bell, Roy, & Peter, 2005; van Zee & Minstrell, 1997) show that inquiry teaching and learning in physics classrooms is characterized by a number of practices called "reflective discourse," some of which can be seen as attempts to align student discussants' views with argument. Van Zee et al. (2005) contend

that concept learning in physics occurs by setting up an intriguing science problem, and then facilitating discussion with explicit displays of questioning, scientific thinking, and collaborative sense-making. Questions facilitate conceptual change when they are used to explore various points of view in a respectful manner. Scientific thinking occurs as students identify different ideas, posit “foot hold” ideas, do “what if” thinking, reason by analogy, and compare proposed explanations. Collaborative sense-making occurs as students refer explicitly to previous speakers, relate to previous utterances or as they use reasoning to advance new ideas. Set in interactional contexts, these practices could be considered as kinds of alignment practices.

In sum, given the research on transacts, social negotiation strategies, and reflective dialogue practices in science classrooms, there appears to be a basis for clustering together reasoning practices that explicitly attempt to align the views of arguers. Argument alignment may occur when arguers propose standpoints that integrate multiple views, use collaborative moves to relate to others’ views or utterances, or attempts to reason explicitly about the others’ reasoning. Given developmental changes in the specific ability to coordinate perspectives (Feffer, 1971), there is a basis for expecting that argument alignment is a developmental achievement, too. The aim of Study 1 is to test this hypothesis, examining children’s ability to manage peer disputes:

H2: There are age-related changes in children’s ability to use argument alignment acts in behavioral disputes.

Study 1 - Method

Participants. Participants in Study I were 44 third, fifth, and seventh graders enrolled in a parochial elementary school located in a large city in the U.S. Northwest. Twenty boys and 24 girls participated, with mean ages nine years, five months ($n = 16$), eleven years, two months ($n = 13$), and thirteen years, one month ($n = 15$), respectively, for the three age groups. The children were Caucasian and came from upper middle class homes. They were interviewed on school premises by a member of an interviewing team composed of four graduate students and their professor. The graduate students completed a training program, were provided an interview script, and practiced before completing their audio-taped interviews, which were later transcribed for coding purposes. The children completed several tasks during the interviews; however only one task is analyzed and presented in this report.

Behavioral dispute task. Three scenarios were developed to measure children's propensity to use persuasive arguments to manage disputes. Each scenario featured a dispute between three or four children (see the Appendix for the scenarios). The structure of these scenarios was similar to scenarios developed by Selman (1980) to measure developmental changes in social understanding. One scenario involved several children putting on a puppet show; another had children playing kickball on a school playground; while the third scenario had a group of children deal with a lost watch. In each scenario the characters expressed different viewpoints on the issue; the child was asked to give his or her view on what should be said and done by a leader-character in the scenario to manage the situation. After the child said what should be said and done by the lead character, the interviewer assumed the role of one of the characters who espoused a different view, and repeated that view. The interviewer then probed the child for how he/she would respond to the different view. Finally, the interviewer asked why the child thought the lead character should respond the way the child advocated.

Argument coding. Responses to each scenario were analyzed for two phenomena; (a) the extent to which the child's arguments and responses created a basis for and situated the child's standpoints, and (b) the extent to which the child's responses handled the other's reasoning while forwarding a mutually desirable line of action. Responses were first examined for which they displayed a basis for reasonableness, either by (a) providing a broad evidentiary basis for understanding how the speaker's reasons or standpoint were adapted to the immediate circumstances, (b) providing normative clarity through articulating relevant maxims, norms, or values applied to the present circumstances, or by (c) articulating the conditions that would lead to particular consequences. Hence the first coding dimension identified the extent to which the child's reasoning provided an elaborated basis for his/her standpoint. The second coding dimension operationalized argument alignment; responses were examined for whether (a) integrative proposals were advocated, (b) mutual discussion was encouraged, (c) there were explicit attempts to reason about others' reasoning or use reasoning to build an integrative standpoint, or (d) reasoning which cast the other into a desirable identity. The specific coding systems are presented in Table 1.

The children's responses were unitized into thought units and categorized into larger idea units based upon their semantic similarities or functional moves (e.g., Saeki & O'Keefe, 1994). Idea units were analyzed for their relevance to each of the two coding dimensions. Only those ideas or acts were counted if they were relevant to either of the two coding dimensions. Twenty percent of the responses were double coded for reliability purposes; Cohen *kappas* were an acceptable .80 for argument basis, and .83 for argument alignment.

Results and Discussion

A repeated measures ANOVA was conducted to assess each hypothesis. Grade level (3) was the between groups factor and scenario type (3) was the repeated measure factor in each analysis. *H1* was supported, as there was a significant effect for grade level on argument basis, $F(2, 41) = 12.47, p < .001$. There were no other significant effects. Post hoc tests showed significant increases in the proportion of argument basis acts between each of the three age groups (third graders, $M = .10$, fifth graders, $M = .54$, and seventh graders, $M = .98$).

The repeated measures ANOVA on the proportion of argument alignment acts was also significant, $F(2, 41) = 6.09, p < .01$, indicating support for *H2*. There were no other significant effects in this analysis. Post hoc tests showed significant increases in the proportion and frequency of argument alignment acts between seventh graders ($M_s = .31$ for proportion, 1.73 frequency) and the other two age groups (fifth graders, $M_s = .18$ for proportion, .95 for frequency, and third graders, $M_s = .10$ proportion, .50 frequency). A final repeated measures ANOVA detected no significant differences in the total number of thought units produced across the three grade levels, $F(2,41) = 1.09, ns$.

Consistent with expectations, there was a significant increase in children's ability to construct an elaborated basis for their expressed standpoints, by articulating an evidentiary basis, normative basis, or consequential basis. There was also a significant increase in the ability to engage in argument alignment, for seventh graders were more likely to promote understanding with questions, and use transacts, altercasting, and integrative proposals to dynamically display potential connections between participants' views. These two argument features appear to be active ingredients of rhetorical competence in behavioral disputes.

While these findings are promising, they are based on a relatively small sample. So the purpose of the second study was to examine the hypotheses with a larger adult sample. Instead of examining age-related differences on these two argument

dimensions, the purpose of Study 2 was to determine if use of the two argument dimensions differs as a function of a different indicator of developmental level, that of interpersonal cognitive complexity. Cognitive complexity has been linked with a variety of functional message features and outcomes, including person-centeredness and listener-adaptation (see the review of Burleson & Caplan, 1998). Based on this research literature and the findings of Study 1:

H3 and *H4*: Persons with high levels of interpersonal cognitive complexity will employ significantly more (*H3*) elaborated bases for their arguments and (*H4*) more argument alignment acts than persons with low levels of interpersonal cognitive complexity.

Study 2 – Method

Participants. Participants in Study 2 were 115 undergraduates (67 male, 48 female) enrolled in communication classes at a moderate sized southern university in the U.S. Most were Caucasian and from middle and upper middle class backgrounds. Their ages ranged from 18 to 33 years ($M = 22$).

Tasks and measures. Participants completed a questionnaire for extra credit that contained a number of tasks. They first completed two regulative communication tasks, the apartment situation (Applegate, 1978), and the small group project task (Clark, 1979). Students wrote out what they would say to their roommate to clean up their shared apartment, or what they would say to convince a group member to complete their share of the project. Participants were asked to write down everything they would say, “just as though they were engaged in actual conversation.” This hypothetical message methodology and specific regulative message tasks have been routinely used by those interested in persuasive and compliance- gaining message features (e.g., Wilson, 2002).

The messages were unitized for thought and idea units and then categorized with the two coding dimensions developed for Study 1. The particular categories that resulted for each of the two coding dimensions are presented in Table 2. Unitizing and categorizing reliabilities were conducted on 20% of the protocols, which were acceptable (Cohen *kappas* = .85 and .81, respectively). The proportion of thought units for each coding dimension relative to the total number of thought units produced was taken to be measures of argument basis and argument alignment.

Participants also completed Crockett’s Role Category Questionnaire, which involved describing two people the participants knew well, one whom they liked and one whom they disliked. These descriptions were scored for the number of

interpersonal constructs they contained, following Crockett's procedures (Burleson & Waltman, 1988). Reliability on 20% of the responses was acceptable ($r = .95$). The number of interpersonal constructs was taken to be the measure of cognitive complexity; based on frequency data, three groups were formed, low, medium, and high level complexity groups (low group, $M = 13.89$, $SD = 2.56$; middle group, $M = 20.46$, $SD = 2.26$; high group, $M = 31.86$, $SD = 8.11$).

Results and Discussion

The hypotheses were assessed with repeated measures ANOVAS, with scenario type (2) the repeated measures factor and interpersonal complexity (three groups) the between groups factor. H3 on argument basis was supported, for there was an effect for complexity on the provision of an elaborated argument basis, $F(2, 112) = 3.51$, $p < .05$. Post hoc analyses showed that the high complexity group ($M = .24$) provided a more elaborate argument basis than those with a medium level of cognitive complexity ($M = .14$), but not more than those with low levels of cognitive complexity ($M = .18$). There was also a significant effect for scenario type, $F(1, 112) = 5.75$, $p < .05$; more elaborate argument bases occurred in the group project situation ($M = .22$) than in the apartment cleaning situation ($M = .15$). There were no other significant effects in the analysis.

A secondary repeated measures ANOVA was conducted on the total number of thought units produced in the regulative messages. The only significant effect was for cognitive complexity, $F(2, 112) = 21.58$, $p < .001$. The high complexity group ($M = 6.84$) produced regulative messages with significantly more thought units than the medium complexity level ($M = 4.58$) or the low complexity level groups did ($M = 3.64$). A repeated measures ANOVA was conducted on the frequency of argument basis acts. The only significant effect in this ANOVA was for cognitive complexity, $F(2, 112) = 12.96$, $p < .001$, with the high complexity group producing significantly more argument basis moves ($M = 1.68$) than those with moderate levels ($M = .68$) or low levels of cognitive complexity ($M = .80$). Hence it appears that the frequency measure of elaborated argument basis obtained stronger effects for cognitive complexity than did the proportion measure of elaborated argument basis.

A repeated measures ANOVA on the proportion of argument alignment acts provided support for H4, the last hypothesis. The only significant effect was for cognitive complexity, $F(2, 112) = 8.54$, $p < .001$. Post hoc tests showed that the high complexity group employed significantly more argument alignment acts (M

= .29) than the moderate level ($M = .17$) or low level cognitive complexity groups ($M = .11$).

Thus, both hypotheses were confirmed. Those with higher levels of cognitive complexity were more likely to use an elaborated argument basis in behavioral disputes than those with lower levels of cognitive complexity, by either articulating an evidentiary basis, normative basis, or consequential basis. Those with higher levels of cognitive complexity were also more likely to use argument alignment acts than those with lower levels of cognitive complexity, with a greater use of questions, transacts, altercasting, and integrative proposals to display connections between the discussants' views.

Conclusion

Together, the two studies show that there are developmentally-related differences in both ways of displaying reasonableness in behavioral disputes. There were age-related changes in providing an elaborated basis for one's standpoint, and in aligning one's standpoint with others' views. Both practices also varied as a function of the speaker's level of interpersonal cognitive complexity; more cognitively complex arguers were more likely to provide an elaborated basis and align their standpoints with other's viewpoints than less cognitively complex arguers. The findings give credence to seeing Bohman's dialogical mechanisms as involving argument practices that differ as a function of age and social knowledge.

Because these findings were obtained with hypothetical role-play scenarios, they need to be replicated with tasks calling for actual interaction. These findings also could be replicated with a wider age range. The coding systems used described the two argument practices in reference to the particular tasks used, and so may be limited by those tasks. Different tasks and a wider age range would likely reveal an ever wider variety of specific argument practices that enact argument elaboration and argument alignment.

The open-ended argument tasks did permit the discovery of specific argument practices, which could be examined further. More empirical work could be conducted on perspective-giving, or elaborating an argument basis. For instance, the way in which arguers articulate their feelings as a basis for their arguments could be studied further; future research could also examine how arguers utilize norms and values in integrating their standpoints, and how arguments can articulate the desirability of consequences.

Research could also focus on argument alignment practices. The work by science

education researchers suggests a number of avenues for study. Practices such as asking questions to explore standpoints, making inferences from foothold ideas, and using analogies to bridge known and new concepts are reasoning practices that may provide insight into how arguments work to create new mutual understandings. Science discussion may also be an excellent context for studying how arguments work not just to resolve conflict, but also to create new knowledge and understandings about controversial issues.

Future research could also unravel the ways in which transacts can work positively to enhance deliberative discourse. The role of transacts or reasoning about another's reasoning in moral reasoning development has a mixed history; unraveling the relational communication practices involved in reasoning about others' reasoning would help pinpoint the relevant communication or argument skills involved in using transacts effectively in deliberative discourse.

Finally, arguments advance or create positive or negative identities at the same time as they forward a substantive standpoint. Yet the interactional construction of arguments and identities has not yet systematically studied (Kline, 1987). Through such study we could understand why some argument practices might be more successful in resolving differences than other argument practices.

In recent work Kuhn and Weinstock (2002) have proposed that the development of epistemological understanding occurs gradually, toward an "evaluativist" level in which evaluating argument and evidence become the key vehicles in producing conceptual knowledge. Kuhn and Weinstock believe that children and adolescents "need practice in making and defending claims especially in social contexts where claims must be examined and debated in a framework of alternatives and evidence" (2002, p. 139). With future research like the studies reported here, argument teachers and researchers could be in a better position to articulate the particular communication and argument practices that might be taught.

Table 1

Study 1: Elaborating and Aligning Argument Practices in Children's Behavioral Disputes

1. Elaborating a Basis for an Arguer's Standpoint

The arguer situates his/her standpoint by articulating a(an):

- a. evidentiary basis: articulates a broader evidentiary field to support a mutually beneficial standpoint, "Tina couldn't memorize all of Bonnie's role in three days. Bonnie is probably doing well since she has been practicing for a while. Bonnie

will probably do a better job because she knows what is happening. “

b. normative basis: articulates and applies maxims, norms, or values, “Bringing people and good to people are really important to me. So I would say, come on and play... maybe he is a nice guy, give him a chance.”

c. consequential basis: describes how conditions would produce likely consequences, “The best approach is to let him play, because if these friends just turn around and say we are gonna play with someone else, you always have him to fall back on. And you always have more friends to fall back on. And he will always remember what you did for him.”

2. Aligning the Arguers’ Expressed Standpoints

The arguer integrates his/her standpoint with others’ standpoints by:

a. proposing an act that incorporates multiple preferences, or proposing specific options or a detailed proposal to achieve all aims: “Well, I can rearrange your part a little bit and make it a little more exciting.”

b. soliciting discussion and clarifying meanings: “Maybe he should ask everybody what they think they should do and then they can all decide;” “Why did you pick your part?”

c. reasoning about the other’s views to note inconsistencies, or to extend, clarify or connect reasoning: “Well, if the situation is that the watch is your watch, you want someone to keep it?”

d. uses altercasting to guide reasoning: “If you find it you can do what you want with it, but we all have found the watch;” “These are good ideas;” “She’ll feel bad.”

Study 2: Elaborating and Aligning Argument Practices in Young Adult Behavioral Disputes

1. Elaborating a Basis for an Arguer’s Expressed Standpoint

The arguer situates his/her standpoint by articulating a(an):

a. evidentiary basis: articulates a broader evidentiary field that supports a mutually beneficial standpoint

(1) articulates desires, aims: “We don’t want a bad grade.”

(2) articulates importance of aims, actions: “Keeping our home clean is important.”

(3) articulates relevant situational features: “We will meet again in two days.”

(4) articulates feelings: “I really hate living in this mess.”

b. normative basis: articulates and applies maxims, norms, or values

(1) articulates bases for rights and duties: "We had an agreement."

(2) specifies expectations, obligations: "Everyone else took time to do it."

c. consequential basis: describes how conditions would produce likely consequences

(1) articulates bridge from action to positive outcomes: "Cleaning up is for your benefit, too. You'll feel better."

2. Aligning the Arguers' Expressed Standpoints

The arguer integrates his/her standpoint with others' standpoints by:

a. proposing an act that incorporates multiple preferences, or proposing specific options or a detailed proposal to achieve all aims:

(1) facilitates request: "Let's figure out a schedule."

(2) initiates integrative proposals: "Let's clean together. I'll help."

b. soliciting reflection and/or clarifying meanings:

(1) legitimizing other's utterances, views: "I've been busy at times, too."

(2) soliciting others' views: "Don't you think that's fair?" "Why?"

c. reasoning about the other's views to note inconsistencies, or extend, clarify or connect each other's reasoning: "Maybe I'm wrong, but..."

d. using identities and altercasting to guide reasoning: "The teacher has confidence in you."

Appendix: Argument Scenarios in Study I

Scenario #1: "Bonnie, Tina, Frank and Tyler are planning to put on a puppet show for their class. At the first rehearsal everybody agrees on who plays what part. Frank is the director. Three days before the show, Tina decides that she doesn't like her part and she wants to quit the puppet show. She says the only way she will stay is if she gets to do Bonnie's part since it is the lead role. Bonnie says to Tina, 'I'm not going to give up my part since I have been practicing from the beginning. You should stay in the part that you were originally given.' Tyler says, 'Why don't Bonnie and Tina share the role?' Can you think of all the things that Frank should say to the group?"

Example refutation probe: "What if Tina says, 'I never did like my part. I won't do

it. Please give me the lead part.' What should Frank say then?"

Rationale probe: "Why do you think Frank should say these things to the group?"

Scenario #2: "Steve, Andy, and Graham are playing kickball on the playground at school. Seth was there, a boy that nobody likes very much. Seth wants to play kickball, too. The boys don't want Seth to play since he always cheats and the game ends up in a big fight. Steve says, 'We should let Sam play since the ball really belongs to the class. It's not just ours.' Andy suggests, 'Why don't we play for 15 minutes and then let Sam have the ball for 15 minutes?' Graham, who is the oldest of the group, feels he should make the decision about what to do. Can you think of all the things that Graham could say to the others?"

Example refutation probe: "What if Andy says, 'You know, Seth is going to cheat. He always cheats. I don't want him to play.' What should Graham say?"

Rationale probe: "Why do you think that Graham should say these things?"

Scenario #3: "Donna, Sandy and Debbie are walking down the hallway in the school. Donna finds a watch on the floor. Sandy says, 'We should keep the watch, cause finders keepers, losers weepers.' Debbie suggests they should turn it in to the principal to see if the person who lost it has claimed it. Can you think of all the things that Donna should say to Sandy and Debbie?"

Example refutation probe: "OK, but what if Sandy says, 'Yeah, but whoever lost it, it is their responsibility. Come on, let's keep it.' What should Donna say?"

Rationale probe: "Why would do think Donna should say those things?"

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