A study was conducted to determine if the Japanese use logic and argument in different ways than do Westerners. The study analyzed sample rebuttal speeches (in English) of 14 Japanese debaters using the Toulmin model of argument. In addition, it made comparisons with a sample of speeches made by 5 American high school debaters. Audiotapes of the speeches were transcribed, and selected portions of the transcripts were then divided into arguments. Within each argument, each simple utterance-act was coded into one of the six categories of Toulmin's model: (1) claims, (2) grounds, (3) warrants, (4) backing, (5) qualifiers, and (6) rebuttals. The picture of Japanese logic that emerged from the analysis was one that emphasizes the use of complete arguments; depends heavily upon grounds; rarely uses backing, qualifiers, or rebuttals; and omits warrants when a part of the primary argument is missing. Compared to the argument used by American debaters, the Japanese version is more complete and uses more evidence. The findings suggest that the Japanese can use logic in a fashion similar to that of Westerners. This, however, says little about their standard way of using logic, and suggests that in debating in English, the Japanese clearly try to conform to Western standards—and probably succeed. (FL)
An Analysis of the Use and Structure of Logic in Japanese Argument

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Appreciation is expressed to Claude Holeman and Father Scott Bowell of the Japan English Forensic Association for their help in obtaining tapes of Japanese debates. The work of Denis Crimes as a primary coder for this study and of Kathy Harbert as third coder was also greatly appreciated.
Most of what we know about communication and rhetoric, in the United States, has grown out of a two thousand year accumulation of knowledge in Western societies. When such a body of knowledge comes in contact with non-Western societies, interesting questions arise. This is particularly true of the way we conceive of argument and logic functioning in the communication process. The theory of argumentation is almost completely drawn from Western sources and its application to communication situations has almost solely been in the Anglo-American context.

One of the few societies in the world where attempts have been made to bridge this gap between Western and Eastern communication practices has been Japan. As a result of such a bridging process, Japan represents an intriguing irony for the comparative analysis of argumentation processes. On one hand, Japan is a society that has traditionally been characterized as having no rhetorical tradition (Morrison, 1972) or role for argument (Becker, 1982). As Kunihiro notes, "those who consider their positions worthy of respect scorn verbal argument as silly, an indulgence for immature schoolboys" which results in a "rather cynical view of the efficacy of argument or discussion" (1974, p. 15). Yet, on the other hand, interest in the study of debate and argument is probably greater in Japan than in any other country except the United States. As Klopf has noted:

There have been some exceptions to this generalization such as the early work of Robert Oliver, and some of the recent work of intercultural theorists. Philosophical considerations of formal logic have also considered Indian and Buddhist forms of logic (see Moore, 1967), but with almost no attempt to relate this to discourse.
Almost 10,000 Japanese university students study debate each year and most of them actually participate in debate matches. Next to the United States of America, Japan has the largest amount of debating in the world..." (1979, p. 1).

Such students eagerly study debate as one means of learning English and Western forms of logic (Becker, 1982). Furthermore, they principally debate in English because many of them believe the Japanese language to be unsuited for such logical uses.

The basis for such an inconsistency lies in the fact that while the Japanese have little in their traditions that resembles Western debate, they do have a desire to learn about the West in the modern world. Such knowledge is considered essential if Japan is to survive in the modern world and avoid crises with other countries in areas such as trade and foreign policy (Kunihiro, 1974; Becker, 1982). Japan seems to be attempting to adapt to the West while at the same time preserving its traditions. Miller, in his study of the Japanese language, describes this process as:

...the remarkable ability of the Japanese culture to tolerate diversity without allowing fundamental change, and in the process, to manage the almost unchanged preservation and transmission of sizable portions of its ancient intellectual heritage from the remote past down to the present day (1977, p. 96).

Some people have advocated debating in Japanese (Becker, 1982) and there is some evidence of recent attempts to do so (Morita, 1983), but as yet there are no large scale efforts.
Such an ironic situation has resulted in a tremendous amount of speculation about differences in communication practices between Japan and Western societies. One of the fundamental questions that has been raised is whether the Japanese use logic and argument in different ways than Westerners. This is a question that has received much speculation, but little research. As a result this paper will: 1) review the literature on the hypothesized differences between Japanese and Americans in their use of argument and logic, 2) examine some of the problems and potential approaches to research on this topic, and 3) present the results from an exploratory study on such differences.

Review of Literature

Before beginning our analysis of differences in logic and argument, it is necessary to make clear that there is a large body of literature on hypothesized differences in other aspects of communication, besides argument, which we will not consider in this paper (see Okabe, 1981 for a good review of many of these differences). Briefly, such differences can be summarized as language related, culturally related and behaviorally related. Language related differences would include such things as distinctions between the singular and the plural (Nakamura, 1967, p. 179), use of circumlocutions (Doi, 1973, p. 183), ambiguity due to verb structure (Doi, 1974, p. 23), reciprocal relations (Goldstein and Tamura, 1975, p. 12), and word order (Farmer, 1984, p. 196). Culturally related differences would

include such things as value differences (Condon, 1974), the role of status (Goldstein and Tamura, 1975), and dependence relationships (Doi, 1973b). Behavior related differences would include such things as hars gei/empathatic communication (Matsumoto, 1978; Kunihiro, 1974), non-verbal (Condon and Yousef, 1975) and decision-making (Matsumoto, 1979).

In the areas of argument and logic, we shall focus on three general areas of hypothesized difference. Before examining specific differences, it must be emphasized that these comparisons are generalizations, which are based on historic patterns (which in some cases may be changing) suggested in the literature (but may not be agreed with by all scholars) but to which there may be individual exceptions.

The first area of hypothesized difference is that disagreement and open clash are not valued in Japan like they are in the United States. In Western debate, disagreement and direct clash are highly valued as essential to the process of truth seeking (Ehninger and Brockriede, 1978). However in Japan, the highest value is placed on harmony and consensus. As Okabe states:

The Japanese, however, value harmony and view harmony-establishing and/or harmony-maintaining as a dominant function of communication. They seek to achieve harmony by a subtle process of mutual understanding, almost by intuition, voiding any sharp analysis of conflicting views (1981, p. 33).

It is this precise aspect of debate that has lead to attacks on it by groups in the United States such as the general semanticists (Hayakawa, 1972).
Such an emphasis on harmony in traditional Japanese society leads many people to avoid disagreement. As Yukawa has said, the dominant pattern in the Japanese mentality is "the tendency to sidestep as far as possible any kind of confrontation" (1967, p. 56). The degree to which these opposite tendencies has been illustrated by Becker when he noted that "the word for argument, giron, suggests the opposite of the Japanese ideal of harmony; it points, not to resolution, but to irresolability" (1982, p. 6).

It has been suggested that such a fundamental difference in orientation leads to attitudes and communicative behaviors that are antithetical to the use of disagreement or clash as either means of communication or knowledge seeking. As Becker has noted:

There is a strong feeling among many Japanese that debate (benron) or argumentation (giron) is fundamentally un-Japanese, not just in the sense of being foreign, for many foreign words and customs have of course been readily assimilated into Japanese culture, but in the sense of being contradictory to the Japanese world-view and way of doing things. A man who cultivates debate and logical argumentation, it is feared, will be more likely to become a rabble-rouser or a malcontent, and will lose his abilities of respecting elders and tradition for their own sakes (1982, p. 14).

The result of such an attitude is that Japanese communication patterns have a number of characteristics that reflect indirectness and a lack of open disagreement. For example, a surface ambiguity is often introduced into a conversation by such features as the use of circumlocutions and the placement of verbs at the end of
sentences. As Doi observes, "...the Japanese language is so constructed as to be particularly conducive to the effect of ambiguity. For instance, Japanese verbs come at the end of the sentence. Therefore, unless and until you hear the whole sentence you wouldn't know where the speaker stands" (1973A, p. 183).

Furthermore, Japanese place great emphasis on relationships and in so defining them in communication such that any disagreement is overlooked. As Becker notes, "...the Japanese language itself favors vague rather than blunt denials and tends to become highly fettered with honorifics so that the central points were often lost" (1982, p. 8). The result of all of this is a series of communication patterns through which the Japanese individual can avoid open disagreement, take a different position in an indirect fashion and at all times seek to preserve harmony.

To see whether such patterns carry over to a formal debate situation, Hazen (1984) carried out an exploratory study of the way arguments are made by Japanese and American debaters. Specifically, he coded all argumentative statements into one of three categories: direct (not referring to any other statement), critical (referring to statements of the other side) or defensive (defending self statements against attacks from the other side). He found that a majority of Japanese statements were critical and that Japanese debaters used more critical statements than American debaters. The results seemed to indicate that in the debate context that Japanese students are able to adopt and use at least one characteristic of Western argument, i.e. criticism.
The second area of hypothesized difference between Japan and the West is the supposed preference of Japanese for emotion and feeling rather than logic. Traditionally, debate, by definition, has placed its highest value on logic and reasoned argument as a means of proof while relegating emotion to a secondary role (if any). Okabe notes the contrast with such a position in Japan:

Americans, in other words, are more inclined toward "hard," "mind-like" logic than the Japanese, who tend to adopt "soft," "heart-like" logic. As a result, the Americans have a tendency to show greater preference for logos, reason, and cognition, whereas the Japanese put greater stress on pathos, emotion, and affection (1981, p. 22-23).

Many writers have traced such a tendency to Japanese language behavior. As Nakamura puts it, "In terms of logical thinking, the forms of expression of the Japanese language are more sensitive and emotive than directed toward logical exactness" (1967, p. 183). He goes on to even more emphatically state that "the Japanese language, so far, has had a structure rather unfit for expressing logical conceptions" (p. 185).

However, it has been argued that the preference for emotion rather than logic goes beyond language behavior to the very structure of the Japanese language. Becker illustrates this when he says that "the word commonly used for think (omou) is not to reason, but to feel" (1982, p. 6). The same phenomenon has been discussed by Matsumoto (1979) when he refers to the dual meaning of the Chinese characters (which form a major portion of Japanese written characters) for information (wa-ke) as situation/circumstances.
or reason, and the Japanese tendency to use the former meaning.

The same tendencies are seen in everyday life which Ishida (1974, p. 119) describes as not obeying "the rules of logic". This phenomenon even reaches into the business world where Nishiyama argues:

In business situations, the Japanese are unable to act analytically. To them, a subjective interpretation of problems is considerably more important than economic considerations. Their approach is intuitive, as opposed to the American businessmen's approach, which is based on reasoning, propositions, and logical inferences from objective data. In Japan, decisions are made not on the basis of facts but the basis of moods... (1971, p. 148).

It is clear that there are authorities who believe that a preference for emotion rather than reason not only pervades the Japanese language but also the thinking and behavior of the Japanese people. It must be remembered that in reality these statements are comparative and not absolute. Not all Westerns fit the logical model that is attributed to them, as illustrated by our political campaigns, and not all Japanese operate solely from emotion, as illustrated by their business success. Therefore there is clearly a need for comparative studies of Japanese and Westerners that test these hypothesized differences.

Third, it has been hypothesized that when the Japanese do attempt to use reason, the processes and results are different from what we would expect in the West. Western argumentation teaches several accepted forms of reasoning all of which place an emphasis
on the laying out of arguments with support in a form that establishes validity and in a relationship to reality that establishes truth. Morrison has argued that in Japanese thought there is a "virtual lack of any logical system resembling Aristotelian logic, experimental logic or any other kind" (1972, p. 101). Yet the lack of Western forms of logic does not mean that there is no form or structure to Japanese reasoning patterns.

There seems to be an indirectness to the overall structure of Japanese argument that reflects a different pattern of organization. Kunihiro describes it as "a way of casually throwing the other guy a ball in order to get a reaction from him on which to base one's next action" (1974, p. 11). Gibney describes it in another way when he says:

Spoken English is especially hard for the Japanese, because of its directness. The typical Japanese conversation goes around in circles, widening or narrowing depending on the interest of the participants. The central topics to be discussed are repeated over and over again, like a fugue (1980, p. ). Such a pattern clearly suggests that Japanese logic does not run in the straight lines of Western analytic thinking which emphasizes the consecutive ordering of arguments which clearly follow from each other.

Specific examples of such reasoning can be seen in Okabe's (1981) discussion of modes of organization (polarization v. aggregation) and forms of argumentation (linear v. circular). He sees Westerners as using polarized argument where points are proven
directly in a dichotomous and confrontational manner, and linear arguments where the ideas are presented step by step in chains. On the other hand he sees the Japanese as using aggregated organization where points are cautiously and tentatively advanced before arriving at the conclusion and circular reasoning where "dotted", pointlike discourse structure is employed.

It has been suggested that the basis for such reasoning patterns lies in a tendency to view things wholistically. Yukawa describes this as a "neglect of complementary opposites" (1967, p.54) and Okabe sees it as the use of synthetic thinking patterns in which they try to grasp reality in its suchness or isness, or in its totality, seeing things as they are in themselves. They do not analyze or divide things into categories, so much as they synthesize diverse elements into a unified whole (1981, p.15).

The acceptance of such a description of reasoning patterns could lead one to a conclusion similar to Becker's: "...occasionally even the laws of logic (as we westerners assume them) fail to work in Japan" (1982, p.14).

The acceptance of a conclusion such as Becker's would contradict some counter-evidence. Miyamoto took exception to an extreme interpretation of Becker's conclusion when he argued that rational thinking and not just intuition have been present in Buddhism and in the conception and expression of art (1967, p.60-61). And Nakamura (1967) saw the potential for change when he said that "logic can be dissemin and developed among the Japanese people" (p.195)

especially light of the growing strictness and precision of the
Japanese language (p. 19). Furthermore, Hasen (1984) in his exploratory study of Japanese and American debaters found that Japanese debaters used a greater proportion of analytic statements (statements supported by reasoning or discussion of consequences) than American debaters. All of this would seem to indicate that it is not totally clear to what degree Japanese use reasoning patterns that are similar to Westerners or to what degree they are capable of using reasoning patterns similar to Westerners.

Research Approach

It should be clear from our discussion of hypothesized differences that several sources for such differences can be posited, e.g. language, thought patterns, cultural values, learned behaviors. Furthermore, it could be questioned whether such sources would or would not be resistant to change. Before a research approach can be proposed, it is necessary to discuss each of these possible sources of differences. Language, as a source of differences would be primarily dependent on measuring argumentative behavior in that language. Thus, presumably, Japanese students, debating in English, would not display the same degree of differences in comparison to Westerners as they would if they were arguing in Japanese, unless such differences were strong enough to influence their thinking processes (in which case they might still be present to some degree). If differences were rooted in deepseated values, then such differences might persist no matter
which language they were arguing in. On the other hand, if the differences were rooted in behavioral tendencies, then they might not persist in an activity such as debate which rewards opposite tendencies, especially if there is a period of training in the activity. Thus, it can be seen that fully understand the nature of such differences it will be necessary to explore a number of research situations.

Research on such speculated differences demands a systematic series of studies. No single study will provide a description of what differences do exist. The research presented in this paper represents one small exploratory study in a projected series of studies to examine these questions.

There are a number of approaches that can be taken to such a project, including the following: 1) a comparison of Japanese and US debaters arguing in English, 2) a comparison of Japanese and US debaters arguing in their native languages, 3) an analysis of arguments in public artifacts such as newspapers, radio-tv broadcasts, advertising and political messages for both Japan and the US, and 4) a comparison of both debaters and non-debaters in Japan and the US on contrived logic exercises.

The exploratory study reported in this paper is a comparison of Japanese and US debaters, both arguing in English. Such a project has a number of assumptions associated with it. First, it is assumed that such a design is a conservative test of possible differences between the two groups, i.e. differences are likely to be minimized and if any appear, they would be strong candidates for
research. This position seems reasonable because Japanese debaters will be pressured to conform to Western practices of argument by the fact that the activity is a debate, it is occurring in English, and it involves those people who are most likely to be susceptible to Western influences. Another way of putting this is that in one sense this design is a test of what could be called the "extreme hypothesis of differences": there is an absolute difference in the way the Japanese and Americans argue which makes it impossible for the Japanese to reason like Westerners under any circumstances.

Second, it is assumed that the use of debates will provide a situation that is midway between the spontaneity of interpersonal communication, and the control of written communication. Debates have elements of both spontaneity and preparation, in that debaters can prepare parts of their speeches before hand (especially, the first affirmative constructive and the second negative constructive) but yet must react to the specific arguments of the opposition as the debate develops. To the degree that an analysis looked at things such as the rebuttal speeches and cross-examination periods, spontaneity would be emphasized, but to the degree that the constructive speeches were examined, then a stronger element of preparation would be present.

With the preceding considerations in mind, this study will examine the following questions:

1. What kinds of argumentative statements are characteristically used by Japanese debaters?

2. What kind of argumentative structures are characteristically used by Japanese debaters?

3. How does the use of such statements and structures compare with that of American debaters?
METHODOLOGY

This study involved the analysis of a sample of rebuttal speeches by Japanese debaters using the Toulmin model of argument (Toulmin, Rieke and Janak, 1984). In addition, comparisons were made with an exploratory sample of rebuttal speeches by American debaters.

Content:

It was decided to look at the speeches of Japanese and American debaters because debate speeches provide a conservative test of differences which if present would provide strong candidates for further study. In addition, it was decided to concentrate on rebuttal speeches because they were more likely to emphasize spontaneity than constructive speeches, but on the other hand they are more likely to allow for the construction of full arguments than cross-examination periods.

Sample:


The Japanese sample consisted of fourteen speakers from four debates and the American sample consisted of five speakers from
three debates. The Japanese sample was considered minimally satisfactory for statistical purposes and the American sample was considered smaller than desired.

Unit of Analysis:

Two units of analysis were used in this study; one focusing on statements and one on the structure of statements. The smallest unit of analysis was a "simple utterance-unit". Harris (1951) defined an utterance as "any stretch of talk, by one person, before and after which there is silence on the part of that person," (pg. 14) and Lyons used this definition in defining a simple utterance-unit as "one that contains one and only one simple proposition (whatever else it may express)," (1977, p. 63). Such a unit was adopted because as Lyons says, they "are the basic units of language-behavior" (1977, p. 633) and they conform to the intuitive observation that arguments are formed from units that express single propositions.

Simple utterance-acts were then grouped together into arguments. For Toulmin, Rieke and Janak, "an argument, in the sense of a train of reasoning, is the sequence of interlinked claims and reasons that, between them, establish the content and force of the position for which a particular speaker is arguing" (1984, p. 14). It was usually clear from the context of the speech what simple utterance-acts were interlinked. The concept of argument allows for the analysis of the way that simple utterance-acts are related to each other.

Coding categories:

Toulmin's model of the elements of an argument provided the 14
category system for coding of simple utterance-acts. In its 1984 form, this model consists of six elements: 1) claims which are "assertions put forward publicly for general acceptance" (p. 29), 2) grounds which are "statements specifying particular facts about a situation" (p. 37), 3) warrants which are "a general, step-authorizing statement" (p. 46); 4) backing which are "generalizations making explicit the body of experience relied on to establish the trustworthiness of the ways of arguing applied in a particular case" (p. 61), 5) qualifiers which are "phrases that show what kind and degree of reliance is to be placed on the conclusions, given the arguments available to support them" (p. 85), and 6) rebuttals which are "the extraordinary or exceptional circumstances that might undermine the force of the supporting arguments" (p. 95).

This model was selected because it provides a generally accepted model of what elements constitute an argument. Furthermore, it better describes the process of argument than traditional logic (Brockriede and Ehninger, 1960) while at the same time it is not too complex for use as a coding system.

Procedures:

After audio recordings of Japanese and American debates had been obtained, they were transcribed to obtain full written texts of the debates. Selected portions of the transcripts (i.e. rebuttals) were then divided into arguments. Within each argument, each simple utterance-act was coded into one of the six categories of Toulmin's model. The coding was done by two coders trained in Toulmin's model. Initially each coder read all of the speeches and placed each utterance-acts into the appropriate categories. Then the two
coders compared codings and resolved differences. A third coder was used for a selected sub-sample to provide a reliability check on the first two coders. No formal reliability coefficient was computed, however the two main coders were able to resolve all differences satisfactorily and the level of agreement with the third coder was high (about 80 to 90 percent agreement).

RESULTS

Argumentative Statements:

Toulmin's model postulates six possible types of argumentative statements, however all statements are not equally likely to be used. Three of the statements (primary statements) form a basic unit of proof and are more likely to appear: grounds, warrants and claims. In addition, multiple grounds often lead to one claim and the warrant is sometimes missing. So it is most likely that argumentative statements will appear in the following order of descending frequency: grounds, claims, warrants, qualifiers, backing and rebuttals.

As can be seen from Table 1 the frequency of argumentative statements for the Japanese debaters fit the basic pattern postulated above. There was a heavy likelihood that any given argumentative statement was one of the primary kind; ground, claim or warrant, and that the order among these three elements was as expected, i.e. the most likely form of statement was a ground constituting fully half of all statements.
### Table 1

**Frequency of Argument Elements for Japanese Rebuttals**

<table>
<thead>
<tr>
<th>Grounds</th>
<th>Claims</th>
<th>Warrants</th>
<th>Backing</th>
<th>Rebuttals</th>
<th>Qualifiers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>83</td>
<td>57</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>302</td>
</tr>
<tr>
<td>(51%)</td>
<td>(27%)</td>
<td>(19%)</td>
<td>(2%)</td>
<td>(0%)</td>
<td>(0%)</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2

**Frequency of the Number of Grounds for Japanese Rebuttals**

<table>
<thead>
<tr>
<th>Grounds</th>
<th>Two Grounds</th>
<th>Three Grounds</th>
<th>Four or More Grounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Ground</td>
<td>22 (29%)</td>
<td>12 (16%)</td>
<td>5 (6%)</td>
</tr>
<tr>
<td>Two Grounds</td>
<td>38 (49%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three Grounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four or More Grounds</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
used (51%). Claims and warrants while plentiful were much smaller in number than grounds (27% and 19% respectively). The plausibility of secondary kinds of statements made it impossible to say anything about order. The only thing that could be said about secondary statements was that they were not very likely to occur in the speeches studied.

**Argumentative Structures:**

It has been argued that an minimal argument ought to contain at least a ground, warrant and claim (Reinard, 1984). Within an argument it is also possible to have more than one ground supporting a single claim. And finally if the argument is not complete, what parts are missing? These propositions and questions form the basis of our analysis of argumentative structures.

As can be seen from table 2, most arguments contained more than one ground (71%). The mean number of grounds per argument was two. Therefore, there was a marked tendency for speakers to use multiple grounds in their arguments.

Most arguments were complete (50 or 63%) i.e. they contain at least one ground, a warrant and a claim, however, 29 or 37% were incomplete. Thus, a sizable number of arguments were incomplete, more than one out of three.

Among those arguments which were incomplete, 24 of them or 83% were missing warrants. In only two cases were grounds missing and in only three cases were claims missing. Thus, it was clear that when a basic part of an argument is missing, it is most likely to be a warrant.
Comparative Arguments:

Extreme caution must be advanced in making comparative judgements in this study because of the small size of the American sample and because of the everpresent pitfalls in comparing elements of different cultures. With this caveat in mind we shall tentatively advance some comparisons.

The types of argumentative statements used by the American sample were similar but not the same as the Japanese sample. For the American sample, 40% (46) of the statements were grounds, 37% (42) of the statements were claims, 20% (23) of the statements were warrants, and 3% (4) of the statements were backings. The principal differences from the Japanese sample were the slightly higher percentage of grounds for the Japanese sample (51% v. 40%) and the lower percentage of claims for the Japanese sample (27% v. 37%). This difference can probably be explained by the tendency of the Japanese debaters to use a greater number (average of two) of grounds than the American debaters (average of one).

The argumentative structures used by American debaters differed in one major respect from the Japanese and were similar in another. The Japanese exhibited a greater tendency to complete their arguments (63% completed) than did the American debaters (48% completed). However, both groups of debaters tended to leave the same thing out of arguments, warrants. For both the American and the Japanese debaters about 80% of the missing statements were warrants.
Discussion

The results presented in this study are exploratory and thus they should only be treated as hints about the use of logic by Japanese and American debaters. Of course, such hints can be useful in guiding future studies, but should not be treated as definitive evidence.

The picture of Japanese logic found in this study is one that emphasizes the use of complete arguments, a heavy dependence on the use of grounds, the rare use of backing, qualifiers or rebuttals, and the omission of warrants when a part of the primary argument is missing. This pattern of results is similar to that found in Haven (1984), namely that Japanese arguments tend to roughly conform to what has sometimes been presented as the ideal kind of argument (i.e. completed, and uses lots of evidence).

This conclusion becomes clearer when Japanese argument use is compared to that of American debaters. Japanese use more completed arguments and more evidence. The tendency of Americans to use less evidence and completed arguments may have to do with a tendency to place greater reliance on evidence and statements made earlier in the debate. On the other hand, Japanese, in trying to conform to the ideal may feel the need to meet the ideal each time an argument is advanced.

What kind of hints about Japanese use of logic can be drawn from these results? It is clear that the Japanese can use logic in a fashion similar to Westerners, but does this say anything about
their standard ways of using logic. When debating in English, Japanese debaters are clearly trying to conform to Western standards and probably succeeding. The problem is analogous to that pointed out by Kunihiro (1974) in his discussion of Japanese communicating with Westerners:

Since natural scientists and engineers, especially in research and publications, use either Western languages or Japanese in such a way as to maintain standards of Western logic, we have developed a dual structure of communication—that employed by Japanese who are well acquainted with Western forms of logic and that used by other Japanese...It follows, therefore, that if one confuses the logic used by a given person in communication with outside world as being the logic dominating Japanese thinking patterns as a whole, the result will be not only a serious misinterpretation of Japan but also misunderstanding of that person's ordinary behavior (p. 13).

It would seem that only future studies involving non-debaters in various situations can answer this question.

One other factor that should be taken into account in interpreting these results, is changes in the Japanese language and use of logic. There seems to be some evidence that both the Japanese language and way of thinking are changing. Nakamura (1967) has pointed out that the Japanese language has become more precise in recent years and that ways of thinking are becoming more like Westerners. Such a trend would minimize any existing differences in Japanese and Western logic.
REFERENCES


