

Resolving Interpersonal Value Conflicts

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VALUE CONFLICT pervades many aspects of social life at every level of the social unit—individual, group, community and society. With the recent changes in our society, however, these value conflicts seem to have increased in intensity, complexity and importance. Thus value conflict, which (as all conflict) has always been a stressor, has now become even more of a stressor. That conflict is a stressor, of course, needs no scientific documentation, since at one time or another we have all experienced the feelings of frustration, confusion, hostility, bitterness, resentment, estrangement, impotence and lowered self-confidence and self-esteem that accompany conflict.

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Although a variety of conceptualizations and practical approaches have been developed for the resolution of value conflicts, none seems to meet a wide range of both theoretical and practical criteria (e.g., theoretical criteria for the soundness of the concepts of value and value conflict in the underlying theory of value, and practical criteria for materials and strategies concerning whether they are usable for real value conflicts, ethical, general, individualized and inexpensive).

This article presents a conceptualization for the resolution of interpersonal value conflicts that meets a variety of these theoretical and practical criteria. This conceptualization emphasizes the role of rational self-legislation by participants in a value conflict in choosing a course of action to resolve the value conflict that will realize the highest value chosen by the participants. (For convenience, we present only two participants in a value conflict.)

This self-legislation conceptualization is most useful when participants in a value conflict want to effect a resolution of the value conflict that is of the highest value to them individually or jointly. In these cases the conceptualization provides ways for the participants to conceive the situation and to carry out their aim. Participants do not or should not always have such an aim, but at times they will. In long-term relations (e.g., the family) or stable health care systems it may be important for a variety of reasons to achieve a situation that realizes the highest value. This may include the participants viewing the value conflict situation as an important occasion to engage in rational self-legislation to further their self-development as persons.

In trying to improve the theoretical

adequacy of this conceptualization, it has become increasingly clear that the fundamental relations between the self and a person's values and valuing processes must be considered. That such relations exist is made clear from everyday experience and from a number of value theories such as that of Werkmeister¹—a self-legislation or self-realization theory and thus a holistic theory—and of Parker.² In both of these value theories the self has a central role. In fact the conceptualization presented here can be viewed as an extension of Werkmeister's value theory to the resolution of interpersonal value conflict.

CHARACTERISTICS OF SELF

Before clarifying the nature of rational self-legislation, it will be helpful to briefly describe the characteristics of self in this conceptualization. The reflexive nature of the self is perhaps its most fundamental characteristic, and probably the only one agreed upon by almost all self theorists. The self is both experiencer and experienced, both the *I* and the *me*, both *subject* and *object*. This reflexivity is, in Werkmeister's terms, the "inner duality of self-reflective experience which characterizes the whole of human existence."^{1(p16)} Diggory's notation helps to express this reflexivity: $X \dots o \dots X$. The first X is an agent, the self as subject; the o is some operation; and the second X is the object of the operation or the self as object.^{3(p65)}

The characteristics of self as subject, the type of operations, and the characteristics of self as object allowed in the concept are what distinguish one concept of self from another. The concept of self presented here is rather broad, but agrees with

ordinary use of the concept, with Werkmeister¹ and with some self theorists. Self as subject includes the immediate experience of self both as agent and as the experienter (Smith's acting and experiencing I^{4(p1058)}). Operations include single operations, such as reflective abstracting, comparing, redirecting, balancing, and integrating, and sets of these operations. Examples of sets of operations, which are like "roles," are diagnosing, observing, judging, adjudicating and legislating.

Self as object includes the products of reflective abstraction from the self-as-subject's experience (the "contents" of experience) such as perceptions, cognitions, beliefs, meanings, values, drives, felt needs, preferences, attitudes and feelings.

Thus in this broad concept, self as subject can engage in a variety of operations on self as object, ranging from passive to active operations, and from isolated elements of experience to broad systems (e.g., the value system). Self as subject can abstract, compare, balance, oppose, redirect, organize, integrate and in various ways exert central control over self as object (i.e., over perceptions, cognitions, desires, attitudes, feelings, values and behavior). Such a broad concept of self is needed for the variety of activities involved in rational self-legislation by the participants.

Self-legislation by a participant involves the participant placing value on some course of action and committing himself or herself to carrying out this course of action because he or she placed the value on the course of action. Therefore rational self-legislation by a participant involves the participant's placing value on a course of action on the basis of his or her rational

evaluation of that course of action, and committing himself or herself to carrying out this course of action because he or she placed the value (rationally) on the course of action.

In this article rational evaluation will be regarded as essentially the same as rational value analysis (i.e., a value analysis in which the value judgment meets the following four standards of rationality stated and defended in Coombs)^{5(p18)}:

1. The purported facts supporting the judgment must be true or well confirmed.
2. The facts must be genuinely relevant (i.e., they must actually have valence for the person making the judgment).
3. Other things being equal, the greater the range of relevant facts taken into account in making the judgment, the more adequate the judgment is likely to be.
4. The value principle implied by the judgment must be acceptable to the person making the judgment.

Finally, then, rational self-legislation by the participants involves the concept of interdependence. The two participants retain their individual identities but are also dependent on each other to some extent. There is individual and joint rational evaluation of alternative courses of action, with individual and joint self-legislation of (1) the criteria for choosing an action from alternatives, (2) rationally evaluating the alternative courses of action to place a value on each and (3) participants committing themselves to the action on which the highest value was placed.

Three phases of the resolution of interpersonal value conflict are presented here: (1) A *preformulation phase*, or the value conflict situation in which the participants

initially find themselves; (2) a *formulation* phase in which the participants formulate important aspects of the initial value conflict situation, especially the sources of value conflict; and (3) the *resolution* phase in which the participants engage in a variety of activities selected and organized to have instrumental value for the rationally self-legislated course of action to resolve the value conflict that will realize the highest value to the participants.

Fact-assembly charts and excerpts from a transcript of an attempt at resolving a value conflict concerning gun control laws are provided to illustrate this conceptualization. Although this attempt did not completely resolve the value conflict, it does illustrate important parts of the conceptualization and indicates the capabilities of two people, Dee and John, with no special training in resolution of interpersonal value conflicts. This four-hour resolution attempt is partially simulated in the sense that each participant was strongly committed to his or her value judgment about gun control laws, but there was no real context of action requiring a resolution.

PREFORMULATION PHASE

The two participants are faced with an incompatibility of some action in a rather complex situation. Some of the main aspects of this complexity are discussed below.⁶⁻⁸

Participants

Because of the importance of interdependence in this conceptualization, the individual characteristics of each partici-

pant are distinguished from relations between the participants.

CHARACTERISTICS

Following are the characteristics for each participant that must be considered:

1. Values: rights held, feelings of obligation, duties believed to be important, intrinsic values attached to, benefits pursued, principles adhered to, standards to be met and rules to be followed (Various value perspectives and classifications of values help highlight basic conflicting values.^{1,9} Nagel, for example, argues that obligations, rights, utility, perfectionistic ends and private projects are basic value types; differences among them are difficult to resolve—much more so than differences within the types.⁹);

2. Belief systems, especially beliefs about the incompatible action constituting the value conflict and other aspects of the situation;

3. Attitudes, feelings, needs, concerns, preferences, perceptions, frames of reference relevant to the incompatible action or other aspects of the situation felt or believed to be relevant;

4. Feelings of frustration, hostility and antagonism specific to the situation; and

5. Capabilities and dispositions of each participant for self-reflection, including self-awareness, self-evaluation and self-modification.

RELATIONS

Following are the relations between the participants that must be considered:

1. Prior relationships,⁶ including interaction patterns⁷;

2. Capabilities and dispositions for *joint* self-reflection and self-direction;

3. Capabilities and dispositions for perspective-taking.

In the value conflict example the participants, Dee and John, are concerned with gun control. Resolution of the value conflict is facilitated by a moderator, the author of this article. Dee and John were students in a graduate seminar on values with the author several weeks before participating in this resolution attempt, and so became well acquainted. Their relations were in general congenial and agreeable. They had informally discussed a variety of topics, which helped identify the value conflict about gun control and some of their reasons, basic concerns about freedom, life, safety and possible actions that could be taken.

Conditions Influencing the Value Conflict

Other conditions influencing the value conflict are discussed by Deutsch,⁶ including the nature of the issue, such as scope, rigidity and formulation; social environment, such as facilities and restraints; and interested audiences to the value conflict, including relations to participants and each other.

In general, then, the preformulation phase is characterized by a complex mixture of contrasting factors, such as causes of and the participant's reasons for the action, participant-controlled activities and passive undergoings, objective and subjective aspects such as environment and self, implicitly and explicitly formulated aspects of the situation, and eliciting subjectively held values and judging the relevance of values to the situation (e.g., rights that might be violated). Clearly the reflexive self is involved in a variety of ways in such a situation.

As a result of different combinations and weightings of all the factors in the preformulation phase, the participants have placed opposing values on the incompatible action. That is, the opposing values placed on the action produce the incompatibility. Whether a participant has formulated explicitly his or her reasons for the value placed on the action, it is clear that in some sense the participants have different reasons for their valuing. For example, one participant may place negative value on an action because it violates rights, whereas the other participant may place positive value on the same action because it confers many benefits on people. Or one participant may feel that an action has great value because it fulfills his or her obligations and respects the rights of all involved, whereas the other participant places a negative value on the same action because it denies benefits to many people (negative utility) and interferes with the participant's own projects.

With this brief characterization of the situation confronting the participants, activities that enable the participants to begin intervening favorably in their own value conflict are now discussed.

FORMULATION PHASE

The fundamental reflexive characteristic of self—Werkmeister's inner duality of human existence¹—enables the participants to formulate the most relevant aspects of the value conflict situation so as to initiate rational self-legislation, both individually and jointly. This involves participants using their capabilities for individual and joint reflective abstraction

and appraisal of the aspects of the situation, placing the aspects into perspective in a more coherent picture of the situation than the participants could have in the preformulation phase. (The participants may, of course, require or at least benefit from help by a consultant, moderator, counselor or objective third party.)

Formulation of Value Judgments

Each participant formulates his or her value judgment of the incompatible action. These opposing value judgments constitute the value conflict. Following are examples of opposing value judgments that would constitute a value conflict:

Participant A

Regular medical checkups are good
 Budgeting is good
 Buying a small car is desirable
 Social drinking is undesirable
 Telling a patient of his or her condition is wrong

Participant B

Regular medical checkups are undesirable
 Budgeting is bad
 Buying a small car is intolerable
 Social drinking is desirable
 Telling a patient of his or her condition is right

Dee and John each formulated their value judgment at the beginning of the resolution session. Dee's value judgment is that gun control is undesirable, while John's value judgment is that gun control is desirable. The difference between these opposing value judgments, then, is the value conflict. They formulate their value judgments in the

following passage:

Moderator: OK, John, what's your initial value judgment?

John: I'd like to see some sort of rather strict gun control law that would reduce the number of handguns, all firearms, available to people, to citizens.

Moderator: OK. So your value judgment would be something like: Strict gun control is desirable. Something like that?

John: Yes. Strict gun control.

Moderator: Dee, what is your initial value judgment?

Dee: I do not feel that gun control is desirable.

Moderator: So your initial value judgment is: Gun control is undesirable.

Formulation of Value Analyses

Each participant is capable of formulating his or her basis, support or reasons for his or her value judgment. We call this evaluation or value reasoning a *value analysis*.

A value analysis performs a number of distinct tasks, such as clarifying the value question, gathering purported facts to support the value judgment, assessing the adequacy of the purported facts, assessing the relevance of the purported facts and testing the value principle as a whole by means of a number of tests.¹⁰

Since the value judgments of two participants in a value conflict are opposed, the difference must be due to differences between the participants in one or more of the above tasks in a value analysis.^{10(p29)} These differences, then, must be *the direct sources* of the value conflict (see boxed material).

FACT-HIGHLIGHTING FORMULATIONS

There are various ways of formulating a value analysis. Some formulations tend to highlight the *factual* aspects of a value analysis, such as the facts a participant has included, the quality of evidence for factual claims, how the facts are ranked in importance by a participant, whether they support a negative or positive value judgment and how a single value or various values might be relevant to a single fact. An example of this kind of fact-highlighting formulation is presented in the fact-assembly charts used by Dee and John in formulating their value analyses (see Tables 1 and 2). (See Applegate and Evans for examples of such formulations in value analysis, usable in a variety of practical settings.¹¹)

Dee and John each completed a fact-assembly chart before the first session.^{10,12} A comparison of the two charts (Tables 1 and 2) clearly depicts one of the most

important sources of value conflicts—differences in the purported facts of the participants. Dee's chart presents mostly negative facts (i.e., facts supporting her negative value judgment about gun control). On the other hand, John's chart presents mostly positive facts (i.e., facts supporting his positive value judgment about gun control).

VALUE-HIGHLIGHTING FORMULATIONS

Other ways of formulating a value analysis tend to highlight the values felt, perceived or believed to be important in supporting or giving reasons for a value judgment. Such formulations would show what the values are, how a participant ranks such values in importance for this situation, and, given some value, which fact or facts are seen as relevant to that value. For example, the fact-assembly chart in Coombs and Meux shows the basic values (concerns) for a participant in evaluating the use of DDT, the facts relevant for each value and the *subsidiary*

TASKS IN PERFORMING INDIVIDUAL VALUE ANALYSIS

1. Identifying and clarifying the value question.
2. Assembling . . . purported facts.
3. Assessing the truth of purported facts.
4. Clarifying the relevance of facts.
5. Arriving at a tentative value judgment.
6. Testing the acceptability of the value principle implied by the value judgment and facts.

CORRESPONDING DIRECT SOURCES OF VALUE CONFLICT AS A DIFFERENCE IN ONE OR MORE TASKS

1. Differences in the interpretation of the value question.
2. Differences in the purported facts assembled.
3. Differences in the assessed truth of purported facts.
4. Differences in the relevance of facts.
5. Differences in the tentative value judgments.
6. Differences in testing the acceptability of value principles.

TABLE 1
Fact-Assembly Chart Formulated by Dee for Gun Control Resolution
(Value Judgment: Gun Control is Undesirable)

Positive Facts	Rank	Negative Facts	Criteria for Negative Facts
1. Handguns were used in 10,323, or 53%, of the murders committed in 1973.	1	On a per capita basis the highest ownership of guns is in Switzerland. Crime rate one of lowest in world.	Every person should own and keep his/her gun and ammunition.
2. From 1964-1973, 613 policemen were killed with guns.	2	Switzerland lowest increase in crime rate in Europe.	
3. 47% of the handguns used in crimes were "Saturday Night Specials."	3	There is no proof that registration will lower crime rate.	Harrington—Program control.
4. 1.8 million handguns are manufactured in the U.S. each year; 1.3 million are "Saturday Night Specials."	4	Most restrictive laws in U.S. are in N.Y., Wash., D.C., Detroit, and Chicago—These 4 cities account for 20% of homicides.	
5. Crime is increasing all over U.S.	5	Gun that killed R. Kennedy was registered.	
	6*	2nd amendment—"A well regulated militia being necessary to the security of a free state, the right of the people to keep and bear arms shall not be infringed."	
	7*	N.Y. 1968 did a study of cost of processing one application—\$72.78. Estimate today would be \$100.00.	
	8	At above rate just to register handguns in U.S. each year would be \$4 to \$5 million.	
	9*	Highland Park, Mich. tried an educational experiment. Trained businessmen in use of guns—and advertised their use in stores. Robberies dropped from 1.5 a day to zero in four months.	
	10*	In Wash., D.C. in one year (1974) 180 brought to trial for illegal possession of gun—only 14 convicted.	
	11	In N.Y. only one in six gun crimes sentenced to jail.	
	12*	Colin Greenwood—In Study-Gun controls ineffective in dealing with serious crime. Tremendous increase armed crimes due to social factors. More willing to commit violent crimes. More illegal guns than legal guns now in England.	
	13	Little effect because handguns used in only 4% of serious crimes.	

*Five most important facts.

TABLE 2
Fact-Assembly Chart Formulated by John for Gun Control Resolution
(Value Judgment: Strict Gun Control is Desirable)

Negative Facts	Rank	Positive Facts	Criteria for Positive Facts
1. Despite stiff gun control laws in England the percentage increase of indictable offenses each year in which a gun is used is high. From 1968-1969: 31%.	1*	In 1974 there were 27,000 people killed by guns in U.S. (All deaths by guns. <i>Reader's Digest</i> , 1975.)	Instruments that result in the deaths of 27,000 citizens each year should be very tightly controlled and not readily available for use.
2. Federal Gun Control Act of 1968 banned importation of inexpensive handguns. This has not worked since parts have been imported and assembled in U.S.	2	Every 19 minutes an American is killed with a handgun.	Any instrument involved in the murder of over 10,000 Americans each year should be controlled from easy availability.
3. Approximately 55,107 work days are required to maintain and enforce the gun control law in England.	3	In 1973 there were 10,340 homicides in U.S. involving handguns.	Any instrument used in a very high percentage of murders, i.e., 67%, should not be readily available for use by anyone.
	4*	67% of all murders were committed with firearms in U.S. in 1975. (<i>Reader's Digest</i> , 1975.)	
	5	U.S. (1963): Rate of homicides: 2.7 per 100,000. Rate of suicides: 5.1 per 100,000. Rate of accidental deaths: 1.2 per 100,000. England and Wales (1963): Rate of homicides: .05 per 100,000. Rate of suicides: .34 per 100,000. Rate of accid. deaths: .16 per 100,000. England and Wales have uniform, strict gun control laws.	Any gun control law that reduces deaths by firearms is desirable. Any instrument intended for the protection of its owner that is more likely to prove harmful to the owner should be controlled.
	6*	A gun kept by a civilian for protection is 6 times more likely to kill a family member or friend than an intruder or attacker. (<i>Reader's Digest</i> , 1975.)	
	7	In Philadelphia murder by firearms reduced 9% against national average after instituting gun control law involving permit system in which fingerprinting and photo necessary for purchase. Felons not allowed to purchase firearms. Three hundred twenty-three felons denied permits in one year.	Any law that reduces murders by firearms 9% is good.
	8	With strict gun control laws the number of firearms registered in England is generally decreasing each year. A decrease of 3% was noted from 1968 to 1969.	Any law that reduces the number of firearms is beneficial.

continued.

TABLE 2 (cont'd.)

Negative Facts	Rank	Positive Facts	Criteria for Positive Facts
	9	In 1975 there were 40 million handguns in U.S. (est.)	
	10*	Two million handguns sold each year in U.S. (<i>Reader's Digest</i> , 1975.)	
	11*	Gallup and Harris polls indicate two-thirds of citizens favor more effective gun control laws, including (1) registration, (2) licensing of gun users.	Any proposal that gains majority favor of public should be strongly considered for adoption.

*Five most important facts.

value judgment for each value (i.e., the presence or quantity of *that* kind of value judged by the participant to be characteristic of the use of DDT).^{10(p43)} For this person the use of DDT is highly detrimental in ecologic value, much less useful and effective in economic value, is risky and self-defeating in practical value and probably dangerous in health value.

COMPARISON OF FACT-HIGHLIGHTING AND VALUE-HIGHLIGHTING FORMULATIONS

Both fact- and value-highlighting formulations have advantages and disadvantages. Some advantages of the fact-highlighting formulation are that (1) it seems to require less abstraction from the concrete value conflict situation and thus may be more "natural" for participants; (2) it requires only a simple judgment of whether a fact is relevant to the value analysis; (3) many value conflicts may be resolved by focusing only on the factual sources of the value conflict; and (4) specific practical procedures of this type have been developed by Applegate and Evans¹¹ for individual value analyses.

One advantage of the value-highlighting formulation is that it makes more explicit the values or perspectives on which basis the relevance of any fact is judged, the subsidiary value judgments that can be viewed as components of and synthesized into the value judgment.

Most important, however, is that the set of subsidiary value judgments for a participant can be viewed as a clear way of expressing the values of the participant that are *realized* in the action. Thus this is called the *value realization pattern*. The differences between the participants in their value realization patterns provide a clear way to pinpoint the *value* sources of the value conflict and to diagnose whether these differences can be sufficiently reduced on this action so as to resolve the value conflict or whether another action must be selected or constructed. Another use of the value realization pattern for each action is to facilitate a direct and easy comparison with the *value criteria pattern* formulated as an *end* by the participants (see discussion on *end*). This value criteria pattern is the basis for judging whether an

action will resolve the conflict (at a minimum) and whether an action can realize other values important to the participants.

Because of the importance of value-highlighting in resolving value conflicts and to facilitate comparison of the fact-highlighting and value-highlighting formulations, the fact-assembly charts of Dee and John have been reconstructed (Figure 1).

The fact-assembly charts in Tables 1 and 2 have been simplified by using a single term to represent a value, listing only the numbers of the facts from Tables 1 and 2, combining two or three values distinguished in the transcript, and arranging the columns differently to facilitate comparison of the value sources of conflict. Almost all of the five values have a serious difference, and the values are also ranked differently by Dee and John. It is also clear that differences in the purported facts for the top-ranked values are an important source of the value conflict.

Indirect Sources of the Value Conflict

Sources of the value conflict other than differences between value analyses of participants are also important, but only insofar as they influence or are relevant to how a participant performs a value analysis. These are *indirect sources* of the value conflict, for example: (1) a participant's perceptions of the incompatible action may influence his or her beliefs about the incompatible action or the degree of incompatibility; (2) prejudice may influence a participant's feelings and attitudes about the relevance of a fact; (3) a "concrete individual" may have difficulty

understanding the perspective or role of another person¹⁰; and (4) stress may overload either participant in a variety of ways, especially restricting the range of relevant facts a participant can take into account, thus biasing the value judgment.

These indirect sources include many of the conditions considered necessary or sufficient to resolve conflicts, thus facilitating or inhibiting conditions in both the initial value conflict situation and in resolution attempts.⁶⁻⁸

The conditions for the formulation phase involved Dee and John formulating their value analyses out of class, including research in the library. These conditions seemed optimal, although both felt they could have used more time.

What has been accomplished in this formulation phase is that, by the participants' formulating the important aspects of the initial value conflict situation, they have transformed it—with its mixture of active and passive, objective and subjective, and self as both subject and object—to a situation that facilitates rational appraisal and deliberation,^{1(p129)} an essential part of rational self-legislation.

RESOLUTION PHASE

As a result of the formulation phase the participants have formulated what they see to be the relevant aspects of the initial value conflict situation, especially the direct sources of the value conflict, the subsidiary value judgments. This formulation includes both the reflective abstraction necessary to self and the identification of aspects of the situation external to self.

FIGURE 1. Reconstructed Fact-Assembly Charts for Value-Highlighting Formulation

Dec's Value Judgment: Gun Control is Undesirable					John's Value Judgment: Strict Gun Control is Desirable				
Facts (-)		(+)	Value	Value Ranking	SVJ*	Value	Value Ranking	(+)	Facts (-)
9		4	Freedom	1	Very threatening	Freedom	3	10 3, 5, 8, 9	
		1-5	Life	3	Questionable effectiveness	Life	1	1, 4, 6 2, 7	
1, 10, 12 5, 11, 13			Legal	2	Anti-constitutional and ineffective	Legal	4	11	First fact Second fact
		3, 5	Safety	5	Relatively ineffective	Safety	2		
7, 8			Cost	4	High	Cost	5		Third fact

(+) = Positive

(-) = Negative

*SVJ = Subsidiary Value Judgment

†No SVJ given because no facts in fact-assembly chart for this value. However, the transcript indicated this high ranking of the safety Value.

Note: First row of facts are the five most important as shown in Tables 1 and 2.

As a whole, this formulation helps the participants achieve a balanced and coherent understanding and appraisal of the initial value conflict situation so as to help decide what activities should be undertaken in the resolution of the value conflict to realize the highest value possible through a rational self-legislation.

The general aim of the resolution phase, then, is for the participants to achieve rational self-legislation of some course of action that holds the highest value for the participants. Many activities can help achieve this general aim. How should we conceptualize these activities to be most helpful to the participants in achieving the general aim? Or how can we conceptualize the activities to maximize the instrumental value of the activities for this general aim? Following are several main considerations:

1. In order for the participants to rationally self-legislate the highest value, they need some concept of a rationally chosen end. Thus the participants need a conception of the range of choices for the end and how to rationally evaluate these in order to select and self-legislate their end.

2. In order for the participants to rationally self-legislate a means to achieve the end, and to realize the values in the end, the participants need some concept of the means possible. Thus the participants need a conception of the range of means to be considered and how to rationally evaluate these in order to self-legislate their means.

3. In order for the participants to manage conditions that will facilitate and not inhibit carrying out the central activities in the first and second considerations,

the participants need a conception of conditions relevant for these purposes.

4. Other things being equal, the more adequately the activities are carried out, singly and in combinations, the greater their instrumental value for the general aim. Thus in order for participants to do this, they need a conception of the relevant criteria of adequacy (e.g., rules, standards, principles, procedures, strategies) for these activities.

5. In order for the participants to more clearly understand their possible operations on themselves (self as subject operating on self as object) and on the value conflict situation external to self, the activities can be conceptualized as operations on some content to meet a criterion of adequacy. This should also help the participants increase their self-control over the processes or activities in the resolution phase and thereby increase their self-legislation.

What does it mean to conceptualize an activity as an operation on some content to meet a criterion of adequacy? This will be examined briefly; how this conceptualization helps meet the five considerations or requirements listed above will then be discussed.

Viewing an activity as an operation on some content to meet a criterion of adequacy is an extension of the concept of an activity as an operation on some content.¹³ Thus in reformulating the problem the operation is *reformulating* and the content is *the problem*. In evaluating an end the operation is *evaluating* and the content is an *end*. In fractionating an issue the operation is *fractionating* and the content is an *issue*.

However, not only does an activity

involve an operation on a content, but it also can be evaluated in terms of its adequacy on the basis of one or more criteria, rules, standards or principles. For example, reformulating the problem can be judged on the basis of how well it incorporates the underlying conflict between the participants. Evaluating an end can be assessed on the basis of how well it meets the standards of rationality discussed earlier in this article. Fractionating an issue can be evaluated on the basis of how well it simplifies the value conflict or facilitates reaching an agreement on some subissues. *Criteria of adequacy* is used here as an umbrella term for all these rules, standards and principles; it also is used for sets or combinations of activities such as strategies, procedures, algorithms and plans.

Criteria of adequacy for operations include conjecturing, clarifying, evaluating, and modifying. When evaluating operations are rational, the first and second requirements listed above can be met. Criteria of adequacy for content includes elements of the resolution situation (especially participants, end, means and conditions) and relations between the participants. The first (end), second (means), third (conditions), and fifth (self vs external to self) requirements listed above can then be met.

Criteria of adequacy can be distinguished as single activities and sets (combinations, sequences or hierarchies) of activities. This helps meet the fourth requirement listed above.

Content, operations and criteria of adequacy of an activity are now discussed to facilitate understanding of how partici-

pants achieve rational self-legislation of a means of the highest value.

Content of an Activity

Two types of content of an activity are important: (1) *elements* of the resolution situation such as the participants, problem, end, means or conditions (These elements are important because they show the locus of *possible* changes in the situation that can both remove the initial incompatibility and increase the value of the situation if modified.) and (2) *relations* between the participants such as the differences in value analysis tasks that constitute the direct sources of the value conflict. The reduction of these differences may be an important type of activity in joint rationality.

ELEMENTS OF THE RESOLUTION SITUATION

The important elements of the resolution situation are the participants, the end, the means and the conditions. The participants (and their relevant characteristics) have already been discussed in the preformulation phase.

The end. The decision about the end involves the rationally self-legislating criteria for the highest value by means of a *value criteria pattern*.

A value criteria pattern is essentially a complex criterion or standard, with each component being some value that specifies the presence or quantity [Note: Quantity is indicated by qualifiers in the value judgment, for example, "slightly," "somewhat," and "highly."] of a value that is to be realized by any action (means) that is to resolve the value conflict. Following is an example of a value criteria pattern for an

end concerning the gun control content:

- Clearly effective;
- Inexpensive;
- Not freedom-infringing;
- Safe; and
- Moral.

In order to decide on a value criteria pattern, the participants need some way of identifying the relevant values they want realized by the action they choose to resolve the value conflict. That is, it would help if the participants had some way of ensuring, or at least making plausible, that they have a wide range of relevant values in their value criteria pattern.

Although no method to ensure this is known, participants may consider for inclusion in their value criteria pattern the following value perspectives and types of values:

- Werkmeister's scale of values, increasing in extent of involvement of self: sensory pleasure, gratification of appetites, sense of well-being, satisfaction, communal living, peace of mind, joys of enterprise and creation, and sense of fulfillment (happiness)^{11(pp114-117)};
- Applegate and Evans's set of ten values (concerns) found useful in their practical work in value analysis: aesthetic, ecologic, economic, effectiveness, health and safety, legal, moral/ethical, political, social and survival^{11(p50)};
- Nagel's five basic types of value: obligations, rights, utility, perfectionistic ends and private commitments^{9(pp129-131)};
- Nagel's list of factors to consider: economic, political, and personal liberty; equality; equity; privacy; proce-

dural fairness; intellectual and aesthetic development; community; general utility; desert; avoidance of arbitrariness; acceptance of risk; the interests of future generations; the weight to be given to interests of other states or countries^{9(p141)}; and

- Some comprehensive set of interpersonal values to include cooperation, mutual trust and understanding, fulfilling joint responsibilities, sharing, intellectual stimulation, friendship, belonging and self-transcendence.^{2(p165)}

See also Edel's concept of a personal base,^{14(p329)} Rescher's and Taylor's principles for classifying values,^{15,16} and Oliver and Shaver's table of oft-conflicting values.^{17(p142)}

For the participants' purposes, it may be helpful at times to distinguish between process and product ends and between particular and general ends.

Process-product ends. The end may involve achieving some kind of process of resolution (that is, some set of activities such as meeting the standards of rationality,^{5,11,18} having equality of participation, moral/ethical activities, and self-legislation). On the other hand, the end may concern the final product of the resolution attempt: the state of affairs to be realized that meets the value criteria pattern, such as new beliefs of a participant or a modified environment. Important values in the product aspect of the value criteria pattern include effectiveness, moral/ethical values, and various benefits. It is important here for participants to distinguish individual values for each participant to realize in the resolution action from interpersonal values.

Particular-general ends. A particular end, which would include Coombs' particular objective,¹⁸ involves resolving only the particular value conflict in the situation, that is, removing the incompatible value judgments so that action can proceed. A general end, on the other hand, goes beyond resolving the value conflict of the particular situation and may include developing one's strategies for coping with value conflicts (e.g., developing capabilities for rational value analysis),^{5,10,11} modifying a participant's belief system to be more adequate or changing the environment so as to be more beneficial. All of these are intended to increase the value of the future of the system, including greater health of the participants, and thereby to at least reduce the probability of future value conflicts between the participants.

In the gun control example the most important process end is to carry out the essential aspects of a strategy much like the guaranteed minimal yearly income strategy used earlier¹² but supplemented with a search for alternative means to the incompatible action in the initial value conflict. The strategy is formulated so that it helps participants increase the rationality of their individual value judgments.

There are two kinds of product ends: *particular* and *general*. The particular end here was to resolve the initial value conflict about gun control (that John regards it as desirable and Dee as undesirable) and included clarifying the values to be sought by each participant in the resolution. The general end here was to clarify the changes needed in the relevant system, to come to some understanding of the factors involved in the problem, and for the participants to

understand both their own and each other's viewpoint.

The following two passages illustrate this kind of activity—clarifying the values to be met in the end.

John: Well, I guess moral would be my primary point of view, in the sense that innocent people are being killed with firearms. That would be my primary point of view. There may be other ones involved but I haven't really considered them yet.

Moderator: OK, Dee.

Dee: I would say moral first, but economic is very important.

Moderator: OK, so you have two primary points of view with moral first. OK, is there anything else that either of you could think of that would help you clarify the value question?

John: Yes, I'd like to add that safety is also another variable here, besides moral also safety. I'm not sure if you could use that as another variable, but it seems different.

Dee: In other words, you really are not considering gun control laws as they are now? You want to come up with something that would be effective in lowering accidents and homicides during crime.

John: Right. It could be a present law that's being considered, or something else. Whatever would work and wouldn't take away too much of the freedom of individuals and be too expensive. Let me add that I mean I don't want something that's going to cost everybody \$10,000 every year or something, but I'm sure we could find some solution that wouldn't have a price tag like that on it.

The means. Of the possible courses of action in the value conflict situation, there may be few or many means for achieving

the end. Whatever the case, the participants choose the means on the basis of how well it achieves the end; that is, how well the value realization pattern of the means meets the value criteria pattern.

Rational value realization pattern. As already indicated, the value-highlighting formulation of a value analysis produces a set of subsidiary value judgments called the value realization pattern. (Note that the *kinds* of values in the value realization pattern are the same as those in the value criteria pattern.) A *rational* value realization pattern, then, is the set of subsidiary value judgments resulting from a *rational* value analysis; that is, one that meets the standards of rationality.⁵

It is assumed that the rational value realization pattern is used as the basis for comparison with the value criteria pattern. Why? Recall that the general aim for the resolution phase involves rational evaluation. However, the less rational the value analysis, the more likely participants are to change their value judgments if they were to do a more rational value analysis. Such a value analysis will be called here a "less-than-rational" value analysis. The importance of this distinction is that the value judgment from a rational analysis may or may not be different from the value judgment from a less-than-rational value analysis. In some cases the rational and less-than-rational value analyses will have the same result; that is, the value judgments of the two participants are not incompatible. In these cases the participants are fortunate, since their decisions about whether there will be a value conflict on the action chosen to resolve the value conflict will not be in error. On

the other hand, if the value judgments from the less-than-rational analyses are different from the rational value judgments, then the participants will act on their judgments erroneously. They may (1) decide that there is no more value conflict—when there really is—and carry out that action, with the cost of moving to another action or continuing with the costs already incurred with the initial action if they remain with it; or (2) decide that there is a value conflict—when there actually is not—and waste time continuing to search for an action on which there is no conflict.

There are obviously many possibilities. Deciding among all these possibilities requires some criterion of adequacy for combinations of activities, such as a strategy; this will be discussed in the section on criteria of adequacy.

Existing means vs new means. Two further distinctions are helpful to the participants. The means may exist at the onset of the value conflict or they may be new, constructed for the purposes of resolving the value conflict, as in the case of many compromises. The construction of new means may be especially important if all existing means are inadequate for resolving the value conflict, as in the case with our gun control example. Although this construction occurs frequently in everyday life, it is not considered here as a matter of course.

In the gun control example a rather large set of existing means, all of which have deficient value realization patterns because she judges them to be ineffective, is referred to by Dee; this set is more or less the

focus of the initial value conflict in the first part of the resolution phase.

Dee: Either accidental or criminal. I think there are some things that can be done that I would buy into that would be parts of gun control, but not gun control as it's in the 128 laws Congress is considering now. Or the 1968 one that was passed. I think they're ineffective.

After exploring these for some time (i.e., appraising their value realization patterns), the participants found it especially helpful to construct new means of their own to meet the underlying problem and move toward resolving the value conflict. This started toward the end of the resolution phase and included examining such means as eliminating "Saturday Night Specials" and requiring education in handling guns. (This is an example of fractionating means.¹⁹) The following passages illustrate creating or constructing new means.

Moderator: Looking at the rest of the facts that we starred, they indicate that there is a problem here with all these guns being implicated in accidental and other deaths, that's what John's facts pretty much point to. We're going to get into the same kind of bind that other people do, that existing facts or existing gun control laws if we move to a new resolution, a new gun control law then we won't have any facts directly on the new gun control law. So we will have . . .

Dee: Maybe we could. For instance, his facts certainly indicate that "Saturday Night Specials" are used in a big percentage of street crimes and things of that sort. If we could control, outlaw, get rid of them in this country, "Saturday Night Specials," we would eliminate the kids and the people who buy a cheap gun and don't know anything about it at least, and that would be reasonable to me.

Mediator: Yeah, that's what I was going to say. Looks like that would be reasonable to assume even though there aren't any direct, hard facts on that.

John: I'd agree with that. Yeah. . . . Is it possible to have a course then when you buy a gun? You have to go through an educational program in order to purchase it—maybe pass a test and be able to demonstrate using your gun.

Mediator: I like that.

John: Demonstrate using a gun safely. I'd really like that. I think that could really be useful.

Mediator: I bet that would cut down on these accidents.

Dee: That's my idea of what education is. Yes. You have to pass the course, refreshers are fine, and everybody in the family; 'cause everybody is exposed to it. And you don't just sell a gun to somebody who doesn't have it.

Means for particular ends vs means for general ends. The means may contain activities only to achieve a particular end or may include activities for achieving a general end, which might include changing a participant's values, capabilities for a rational value analysis¹¹ or changing some part of the environment.

Conditions. The conditions for the resolution phase are essentially the same as the indirect sources of value conflict from the formulation phase. In the resolution phase they influence value analyses that formulate the value realization patterns just as they influenced the direct sources of value conflict. As already indicated, these conditions have been discussed considerably in the conflict resolution literature (e.g., see Deutsch's discussion of the course of destructive conflict and the course of constructive conflict).⁶

In the gun control example were a number of ground rules such as each participant completing the fact-assembly chart, using more than one session, using a moderator who would be active in attempting to minimize stress and reduce the amount of tangential discussion while allowing full relevant participation from each participant. It also included taping the discussion, which made a difference, as indicated by Dee and John in off-taping comments.

RELATIONS BETWEEN PARTICIPANTS

The second main type of content is some kind of relation between the participants such as a similarity, a difference of some kind, an authority relation or a power relation.

The sources of the value conflict—the differences in the tasks in a value analysis or the subsidiary value judgments—are one of the central relations between participants. Others would be differences in the value criteria pattern judged to be best by each participant, differences in how to construct new means and agreements on how to handle stress in the resolution phase.

The whole range of interpersonal values indicated above involve relations between the participants, including mutual trust, cooperation, friendship, mutual satisfaction in resolving the conflict and equality of participation.

In the gun control example, differences between the fact-assembly charts (e.g., in facts and in subsidiary value judgment) are examples of relations between the participants.

The concept of joint rationality essentially involves relations between the par-

ticipants, both in facts agreed on, values agreed on in the value criteria pattern and the interpersonal values realized in any action, as expressed in the value realization pattern.

Operations in an Activity

There are at least four distinct kinds of operations involved in the resolution of value conflicts: conjecturing, clarifying, evaluating and modifying. The first three correspond to major types discussed earlier.¹³

CONJECTURING

Conjecturing puts forth something for consideration, to consider as a possible solution for something, as in conjecturing an interpretation of a problem, conjecturing a new means and conjecturing a new definition for a term. Examples of conjecturing are stating, producing, constructing, countering, proposing, introducing and supposing. Thus the conjecturing operations propose alternatives for consideration in reflective abstraction and are necessary for any kind of change to take place.

CLARIFYING

Clarifying operations clarify conjectures in various ways, depending on what is conjectured, so that the participants have a clearer idea of what they are confronted with that already exists in the value conflict situation or what has been conjectured for a change. Examples of clarifying are identifying, defining, inferring, describing, specifying, interpreting, perspective-taking, conceptualizing and explaining. Clarifying is an essential part of reflective abstraction, and helps partici-

pants determine what they are legislating and to what they are committing themselves.

EVALUATING

Evaluating rates, assigns or ascribes value to something, places value on things, or supports, justifies or gives reasons for ratings, value judgments and value decisions. Examples of evaluating are rating, assigning value to, challenging, appraising, assessing, deliberating, and, of course, the complex set of operations in a rational value analysis. Evaluating is clearly necessary for the participants to determine the extent to which any action realizes the participant's values (the rational value realization pattern) and to decide on a value criteria pattern, that is, all the distinct aspects of what is involved in the participants' rationally self-legislating the means with the highest value.

MODIFYING

Closely related to conjecturing are various operations that actually modify something in the situation, that is, some content. Examples of modifying are reducing, transforming, fractionating, differentiating, integrating, synthesizing, narrowing, reranking, reinterpreting and reformulating. Without the modifying operations the value conflict situation could not be changed in whatever direction the participants decide is of the highest value. Thus there could be no meaningful self-legislation.

Activities Involving Operations on Relational Content

As indicated above, one type of content is relations between the participants. Thus

one way of classifying activities is on the basis of relational content.

Since one central kind of relation is the sources of value conflict, one important activity involves operations on these sources of value conflict. In the conceptualization of the resolution of value conflict,¹² resolution was essentially defined as the identification and reduction of these sources of value conflict on the initial action. Although resolution is no longer defined this way, identifying and reducing the differences in the value analysis of the two participants are still important activities in a rational self-legislation conceptualization of the resolution of value conflict. This is because, while carrying out these activities, the participants can increase both their individual and joint rationality. These activities are also important in determining whether commitment to an action should be maintained.

Carrying out the six tasks for explicitly and extensively identifying and reducing differences in the sources of their initial value conflict was the first part of the strategy used in the gun control example, especially identifying and reducing of differences in the assessed truth and relevance of the factual claims in the fact-assembly charts. The charts clearly indicate some of the sources, with the differences between Dee and John in positive and negative facts. The focus on their differences occupied 24 pages of transcript in the first part of the resolution attempt. Following are examples of three kinds of reducing differences.

1. Reducing differences in interpretation of the value question:

Moderator: OK. We're going to go through the six tasks, and the first task was

going to be the clarification of the value question. John, what do you mean by your value object, strict gun control?

John: I would include all firearms—in terms of the value object, you mean, not just handguns, but since a lot of innocent people are killed with rifles and other kinds of firearms each year. So, to start, anyway, I'd say all firearms.

Moderator: OK. That's good. Dee, what would you say if you were to specify your value object?

Dee: I would have to say that, other than "Saturday Night Specials," I don't feel gun control would be of any value.

Moderator: Then your value object is gun control, other than "Saturday Night Specials." OK.

2. Reducing differences in the purported facts assembled:

Dee: I could add to that and it would help your side. I think we could in that fact go on and say that 40% of the violent crimes do use handguns. Four percent of serious crimes with guns and 40% of violent crimes—and I think that's pertinent. That should go in if we're going to be fair.

3. Reducing differences in the assessed truth of purported facts:

John: I'd really like to know where you got fact 7, too.

Dee: I got that from a [names a politician] article in *Reader's Digest* . . .

John: Well, I'm not sure if I could buy all that [names same politician as above] says; he's got a lot at stake in this thing, I guess, he may say some things that may not be completely true.

Dee: What do you disagree with, the estimate today or the study estimate that it costs \$72.78 to process one application to either grant or turn down a gun registration?

John: I'm just not sure he's telling the truth, that's all.

Dee: Well, I assume we could find out if there was a study done.

John: Yeah, that's true. This is from a study, and if he didn't hire these people to do the study, and ask them to kind of help him out with some of this, finding some data on his side, I could accept it a little better, a little more.

Dee: New York City did the study. It was a study there, for their cost.

Moderator: You're concerned, John, that maybe [names same politician as above] didn't quote the study right?

John: Yeah, I guess, and propaganda. That he may be using this data . . . or he may not have quoted the study right, I guess that's what I'm worried about. I mean he is a politician. I'll accept fact 7 now. It seems reasonable and I was just kind of being picky there maybe.

Criteria of Adequacy

As indicated above, a variety of criteria of adequacy are relevant for evaluating, guiding and organizing the activities in the resolution phase (e.g., rules, standards, principles, strategies, procedures, algorithms and plans). These more or less explicit criteria are scattered throughout both the philosophical¹² and psychological literature²⁰ relevant to conflict resolution.

One important way to classify the criteria is on the basis of whether they apply to single activities relevant to some operation or element of the situation or whether they apply to sets of activities (e.g., for the entire resolution session, for only the formulation phase or only the resolution phase).

SINGLE ACTIVITIES

We have already given examples of criteria of adequacy for single activities, such as the criterion of incorporating more of the underlying conflict between the participants for evaluating the activity of reformulating a problem. Another criterion of adequacy for fractionating a means is how well it simplifies the value conflict or facilitates reaching agreement on some subissues.

OPERATIONS OR CONTENT

Relevance to operations. Criteria of adequacy may be used to evaluate conjecturing, clarifying, evaluating or modifying. For clarifying, criteria for sound conceptual analysis might be relevant, such as clarity, accord with common usage, significance, rigor and fruitfulness. For evaluating, the standards of rationality⁵ are applicable anywhere in either the formulation or resolution phases and are especially important in our rational self-legislation conceptualization.

Relevance to content. Criteria of adequacy may be classified by relevance to the participants, end, means or conditions. For participants there are criteria of adequacy for evaluating the participants' beliefs when expressed as factual claims (standard of rationality no. 1 in Coombs⁵ and no. 2 in Applegate and Evans¹¹). There are even criteria for evaluating a participant's values, that is, criteria of "axiological adequacy"^{21,22} such as clarity, consistency, generality, congruence with known fact or experience, harmony and coherence. For ends Edel suggests such criteria as attractiveness, purity, permanence, constructiveness and depth.^{23(p78)} (See also his

extended discussion of the evaluation of ends.²⁴) For means, many values are relevant, as discussed earlier. For conditions, Frost and Wilmot,²⁰ Deutsch⁶ and Nye⁷ summarize much of the relevant literature such as avoiding stress, reducing misconceptions and using a moderator.

Criteria of adequacy for sets of activities. Criteria of adequacy for sets of activities guide and organize an entire set of activities in all phases of the resolution of value conflict. Examples of such general criteria of adequacy are strategies, procedures, algorithms and plans. Examples of such general criteria of adequacy are Meux et al.'s strategy on guaranteed minimal yearly income and the ten-step procedure for legalization of abortion.¹²

The strategy used in the gun control example involved mainly the use of the fact-assembly charts and focusing on the first three of the six sources of value conflict specified in terms of the tasks in a value analysis discussed earlier. There was also an explicit search for means other than the initial means that produced the value conflict. This strategy is similar to the strategy used for the resolution on guaranteed minimal yearly income in Meux et al.¹² The main advantages are helping participants clarify their own and each other's position and values and helping avoid the risk of wrongly rejecting the initial incompatible action if there is a strong commitment to it.

The importance of strategies is now discussed and a seven-step procedure is presented that is based on a value-highlighting formulation of the value conflict situation.

Strategies. As discussed earlier, there are

three kinds of action possible in a situation: those having disvalue for both participants, those on which there will be a value conflict, and those judged positively by both participants, thus constituting resolution actions.

This classification is important to remember when participants try to find the best means, since participants cannot determine the type of action without a rational value analysis. To find the best means, both participants must conjecture all possible actions and perform individual and joint rational value analyses on each means in order to determine which type of action it is. This clearly presents a dilemma to the participants, since in many situations with a large number of actions there will be insufficient time or inclination to undertake both functions.

For any given action, the less rational the value analyses, the more risks the participants take in either accepting or rejecting it as a resolution action. If the participants reject an action that is actually a resolution action, they must continue to search for a resolution action, thus wasting time and ignoring a resolution action that might have provided a unique value in addition to those specified in the value criteria pattern. On the other hand, if the participants agree on a resolution action when it is actually a value conflict (or even a disvalue) action, then the participants will continue to have a value conflict with its various consequences.

Many strategies have been considered both in everyday life and in the conflict resolution literature.

One type is a *minimax* strategy that minimizes the worst risks. If the partici-

pants can determine the worst risks for their situation, they then can determine what to do. If the worst risk is to lose time and commitment in an action (e.g., the initial action or newly constructed ones), then the participants must put in extra effort on value analyses of actions so that they do not reject any mistakenly. On the other hand, if the worst mistake is to agree on a new action that then turns out to be a value conflict action (e.g., if the participants detest resolving value conflicts), then they should put in extra effort on value analyses so they do not agree mistakenly.

Another type of strategy is a *bandwidth-fidelity* strategy. In the first or bandwidth stage a small amount of not very reliable or valid information is obtained on a wide range of actions in order to select a few actions for further consideration; in the second or fidelity stage the selected actions are then evaluated more carefully before a final decision is made on the best action. As presented here, this strategy would amount to performing a far less than rational value analysis in the first stage on a wide range of possible actions to select a few for further consideration. In the second stage, participants would perform rational value analyses on the actions selected before deciding on the best resolution action. That is, on the actions selected, participants would determine the rational value realization pattern for each action and compare these patterns to the value criteria pattern to determine the best resolution action.

A number of helpful activities could be undertaken in the bandwidth stage. For example, participants could check their two top-ranked values to determine if

either has a value conflict between the participants' subsidiary value judgments. If they do, participants could identify and reduce differences in factual claims and adequacy of evidence. Then if these subsidiary value conflicts cannot be eliminated, the actions can be rejected. For example, Dee eliminated all 128 means because they are ineffective. On the other hand, if the differences can be reduced even further with more activities that help reduce differences, then the action should be included for further consideration in the fidelity stage. Activities for identifying and reducing differences, which were the central part of Meux et al.'s earlier conceptualization,¹² seem most useful in the bandwidth stage of a strategy. This is essentially what happened in the gun control example. These activities also seem useful in clarifying the other participant's position, understanding the other person and identifying to some degree what might be important values in each participant's value criteria pattern and in their joint value criteria pattern.

It might be worth emphasizing that in the selection or development of strategies one must not think that rational value analyses in general and the identifying and reducing activities in particular will necessarily result in the resolution of a value conflict (as seen in the resolution attempt in Meux et al. on the legalization of abortion¹²). The action being evaluated may be a disvalue or value conflict action. What the rational value analysis does is provide a way of judging the true value of an action for the participants or—less controversially—provide a value judgment that is not likely to change even after more

value analysis activities are undertaken. The closer the judgment to the true value of an action for the participants, the easier to classify an action as a resolution action. Also, given a value conflict on an action, the best way to resolve it on *that* action is by identifying and reducing differences rationally.

Following is a seven-step procedure based on value-highlighting formulation. The first three steps involve a formulation phase—identifying the important sources of conflict and determining where these sources are considered as differences in the subsidiary value judgments. The last four steps involve a resolution phase—some activities are aimed more directly at reducing the differences. The procedure is described for only two participants and is illustrated with the reconstruction of the gun control example.

Step 1. The participants arrive at the session with the value-highlighting fact-assembly charts completed and the values ranked. Each participant examines the other's chart. (See Applegate and Evans for many practical suggestions for performing rational value analyses in general and fact-assembly charts—there called fact-organization charts—in particular.¹¹)

Figure 1 presents the reconstructed fact-assembly charts for Dee and John. Differences between the participants in their subsidiary value judgments or value realization patterns are assumed to be the main sources of the value conflict.

Step 2. The participants identify important differences in their subsidiary value judgments (i.e., for those values having

opposing subsidiary value judgments). Each value on which subsidiary value judgments are not opposing is dropped from further consideration, since it is assumed not to be a source of the value conflict.

Important differences between Dee and John are in the values of freedom, life and legality (especially effectiveness): (1) Dee judges current gun control laws to be infringing on freedom, whereas John judges them to be only somewhat threatening and whatever infringement exists to be necessary; (2) Dee judges the current gun control laws to be ineffective in saving life, whereas John judges them to be highly effective; and (3) Dee judges the current gun control laws to be ineffective *as laws* (as we also saw in the passage saying there are 128 laws being considered in Congress), whereas John judges them to be somewhat effective. Differences on these three values are the most important sources of value conflict, the other important sources being the ranking of values.

Step 3. Participants classify each important difference in subsidiary value judgments into one of three types. In the first type the values are ranked high by both participants; in the second type a value is ranked high by one participant but not by the other participant; in the third type a value is ranked low by both participants. Differences of the third type are dropped from further consideration, since they are not an important source of the value conflict.

In the gun control example there are no differences of the first kind. All differences are of the second kind, except for cost.

Since this is a difference of the third kind, it is dropped from further consideration.

Step 4. This step begins the resolution phase activities. For each of the most important subsidiary value judgments of the first kind, participants simultaneously (1) identify differences in the factual claims assembled in the fact-assembly charts and attempt to reduce differences in both *which* factual claims are retained, added or deleted and in the *quality* or adequacy of evidence of the factual claims; and (2) maintain and even improve the extent to which each participant individually meets the standards of rationality. For each value, participants then decide whether they agreed on the subsidiary value judgment or at least have only an unimportant difference.

In the gun control example there were no differences of the first kind, so this step would not be performed.

Step 5. Repeat the activities in step 4, focusing now on values with differences of the second kind (from step 3).

As already indicated, in the gun control example the participants spent a great deal of effort on these tasks, but it was not organized by the values to which the factual claims were relevant. (Some agreement did take place, however.)

Step 6. For those values of the first and second kind in which subsidiary value judgments still differ importantly, the participants review differences in their rankings of the values to see if the preceding discussion might lead one or both

participants to change their rankings. For example, one result might be that a value is viewed as unimportant for both participants, making the difference in subsidiary value judgments a difference of the third kind and thus no longer a source of the value conflict.

In the gun control example there was a brief spontaneous review of this kind, but it did not result in any important changes in rankings of values.

Step 7. At this point the initial incompatible action is not likely to be a resolution action. Thus participants should try other actions—whether existing or new—that seem more likely to be resolution actions. One way would be to produce another action by noting the “negative facts” in the highly ranked values for both participants and trying to modify these characteristics to produce another action better meeting the value criteria pattern.

This is essentially what took place when Dee and John began to agree on the importance of eliminating “Saturday Night Specials” and requiring some type of education in the wise use of guns. In the following passage Dee and John formulate their final value judgments:

Moderator: OK. We’re going to conclude now with final value judgments. Dee, what do you have?

Dee: A gun control law that would establish an education program to lower accidents and gun control that would outlaw “Saturday Night Specials” but not interfere with my constitutional right would be desirable.

Moderator: That comes close to a value principle, which is another way of saying

that you kind of specify the characteristics of your gun control law. That’s good. OK. John, what do you have?

John: Well, for me I’d still like to see guns out of the hands of the public. I understand that it’s not practical to do that and we haven’t reached a solution to do that. So for me a training program would be very good in which people who purchase guns would go through a training program and learn safe ways of dealing with guns. I would value that.

Moderator: OK.

John: I’m not sure that’s a value judgment.

Moderator: That’s pretty close to what we’re thinking of as a value judgment. You spelled out characteristics of a gun control law, that it would involve training programs, etc.

John: We still haven’t resolved the issue of guns in the hands of the public. Guns at home.

Moderator: Right. That would be, then, if we looked at specific characteristics of a gun control law, there would be some on which you two would have agreement, and then some on which there would still be disagreement. But that’s considerable progress over the position we started with.

HEALTH IMPLICATIONS

What if participants in a value conflict situation used this conceptualization as a guide for resolving the value conflict? What beneficial effects, if any, would there be on the participants’ health? There seem to be many ways the use of this conceptualization by participants in a value conflict might affect health. For example, impressionistic observations from our own

resolution suggest that the use of the conceptualization reduces stress and hostility, helps an individual understand and appreciate both himself or herself and the other (see Meux et al.¹²), and improves an individual's sense of coherence of important aspects of the situation, especially by using the fact-assembly charts. It also seems plausible that there might be increased feelings of self-confidence from being able to cope with both the tactical and strategic aspects of a difficult and complex problem, with an enhanced sense of agency from more rational control over the environment and increased self-control and self-direction from the rational self-legislation. In fact, this conceptualization could readily be viewed as a coping strategy for value conflict; that is, an overall plan of action for overcoming stressors that has the characteristics of rationality, flexibility and farsightedness.²⁵(p112-113)

Further support for the plausibility of claims about beneficial effects from using this conceptualization could be obtained by discussing how participants could or might improve on each of Bower's five dimensions of ego processes,²⁶ by discussing how participants could improve on most of Jahoda's proposed six criteria for mental health as discussed by Loevinger,²⁷ or by examining implications of the fact that one of the conceptualization's central concepts, the self, is a holistic concept and thus provides a *prima facie* plausibility for implications for holistic health.

However, only implications of the conceptualization for one important aspect of holistic health, improving a participant's sense of coherence, are focused on here. Antonovsky has recently argued that

a person's sense of coherence is one of the central factors, if not *the* central factor, in maintenance of a person's health.²⁵

The basic assumption here is that a participant's sense of coherence can be improved by improving the actual coherence of his or her formulations of various aspects of content in the self as object (perceptions, meanings, beliefs, values, and so on). Two kinds of operations are important in improving coherence: clarifying and modifying. Clarifying operations are helpful in improving coherence because they help pinpoint where the lack of coherence exists. Modifying operations increase coherence directly.

Clarifying Existing Coherence

A number of clarifying operations can help participants determine existing coherence. For example, a participant can examine his or her value analysis in the fact-assembly chart to clarify the extent of its coherence—how he or she balances the positive and negative facts for each subsidiary value judgment, ranks the values, and "synthesizes" the subsidiary value judgments into the overall value judgment. When the two participants compare their fact-assembly charts, this will indicate roughly the relative coherence of each participant.

Coherence may also be clarified by examining consistency, since a lack of consistency reduces coherence. For example, a participant may notice that the value rankings in the fact-assembly chart are not consistent with rankings in similar situations, or that some important values to himself or herself have been omitted that

have been included in similar situations. The use of the tests for the consistency of a value principle—the new cases test and the subsumption test^{5,10,11,18}—may indicate lack of consistency.

Although a formulation can be viewed as clarifying what the coherence is, a formulation may also increase coherence. For example, the formulation of a fact-assembly chart enables a participant to see aspects of the situation "as a whole" and to see relations that are more difficult to grasp in the context of a discussion. This is especially true of conceptual relations, as in the syllogistic kind of reasoning, in the criterion (major premise) and fact (minor premise) together supporting a value judgment (conclusion).²⁸

Increasing Coherence

Some modifying operations increase coherence, including balancing, subsuming, reranking, reconceptualizing, reformulating and integrating. One way of increasing coherence is by reformulating the value principle after adding new facts.^{11,18} Another way of increasing coherence is by

reconceptualizing some aspects of the situation in terms of some conceptualization from psychology or the social sciences, showing how these aspects "hang together" in a way not before considered by the participants.

The reduction of complexity increases coherence, as evidenced in the formulation of a fact-assembly chart.¹⁰ A participant can see the relations of facts to each other in a fact-assembly chart (e.g., how specific facts help warrant general facts), how the facts relate to the values to which they are relevant, that each subsidiary value judgment helps reduce complexity by organizing everything relevant to that value perspective, and how the subsidiary value judgments can be "synthesized" into the overall value judgment. Further, when the two participants study each other's fact-assembly chart, complexity is reduced and thus coherence is increased. Each participant can see what facts are relevant and most important to the other participant, how the values are ranked, and in general see the similarities and differences as a whole.

REFERENCES

1. Werkmeister, W.H. *Man and His Values* (Lincoln, Neb.: University of Nebraska Press 1967).
2. Parker, D.H. *The Philosophy of Value* (Ann Arbor, Mich.: University of Michigan Press 1957).
3. Diggory, J.C. *Self-Evaluation* (New York: John Wiley and Sons, Inc. 1966).
4. Smith, M.B. "Perspectives on Selfhood." *Am Psychol* 33:12 (December 1978) p. 1053-1063.
5. Coombs, J. "Objectives of Value Analysis," in Metcalf, L., ed. *Values Education: Rationale, Strategies, and Procedures* in the 41st Yearbook of the National Council for the Social Studies (Washington, D.C.: National Council for the Social Studies 1971) p. 1-28.
6. Deutsch, M. *The Resolution of Conflict* (New Haven, Conn.: Yale University Press 1973).
7. Nye, R.D. *Conflict Among Humans* (New York: Springer Publishing Co. 1973).
8. Johnson, D.W. and Johnson, R.T. "Conflict in the Classroom: Controversy and Learning." *Review of Educational Research* 49:1 (Winter 1979) p. 51-69.
9. Nagel, T. *Mortal Questions* (Cambridge University Press 1979).
10. Coombs, J. "Teaching Strategies for Value Analysis," in Metcalf, L., ed. *Values Education: Rationale, Strategies, and Procedures* in the 41st Yearbook of the National Council for the Social Studies (Washington, D.C.: National Council for the Social Studies 1971) p. 29-74.
11. Applegate, T. and Evans, K. *Making Rational Decisions* (Salt Lake City: Concept Development, Inc. 1979).

12. Meux, M. "Resolving Value Conflicts," in Metcalf, L., ed. *Values Education: Rationale, Strategies, and Procedures* in the 41st Yearbook of the National Council for the Social Studies (Washington, D.C.: National Council for the Social Studies 1971) p. 120-166.
13. Meux, M, Evans, K. and Applegate, T. *The Development of a Value Observation System for Group Discussion in Decision Making*. Final report of U.S. Office of Education Project No. 0-H-028. (Salt Lake City: Bureau of Educational Research, University of Utah 1972).
14. Edel, A. *Ethical Judgment* (New York: Free Press 1955).
15. Rescher, N. *Introduction to Value Theory* (Englewood Cliffs, N.J.: Prentice-Hall 1969).
16. Taylor, P. *Normative Discourse* (Englewood Cliffs, N.J.: Prentice-Hall 1961).
17. Oliver, D. and Shaver, J. *Teaching Public Issues in the High School* (Boston: Houghton-Mifflin 1966).
18. Evans, K. and Applegate, T. "Value Decisions and the Acceptability of Value Principles." *Values Concepts and Techniques* (Washington, D.C.: National Education Association Publication 1976) p. 148-158.
19. Fisher, R. "Fractionating Conflict," in Fisher, R., ed. *International Conflict and Behavioral Science: The Craigville Papers* (New York: Basic Books 1964).
20. Frost, J. and Wilmot, W. *Interpersonal Conflict* (Dubuque, Iowa: Wm. C. Brown 1978).
21. Meux, M. "A Perspective on Axiological Adequacy—Some Implications for Values Education: Comments on Howard Kirschenbaum's Paper." *The Value Theorists' Approach to Moral/Citizenship Education* presented at the Moral/Citizenship Education Conference, Philadelphia, 1976. (Philadelphia: Research for Better Schools 1978) p. 45-64.
22. Tucker, R. "Assessing Adequacy in Moral Value Change," in Proceedings of the Eighth International Interdisciplinary Conference on Piagetian Theory. (Los Angeles: University of Southern California Press 1979).
23. Edel, A. *Science and the Structure of Ethics* (Chicago: International Encyclopedia of Unified Science 2:3, University of Chicago Press 1961).
24. Edel, A. *Method in Ethical Theory* (New York: Bobbs-Merrill 1963).
25. Antonovsky, A. *Health, Stress, and Coping* (San Francisco: Jossey-Bass 1979).
26. Bower, E. "The Confluence of the Three Rivers—Ego Processes," in Bower, E., ed. *Behavioral Science Frontiers in Education* (New York: John Wiley and Sons 1967) p. 48-71.
27. Loevinger, J. *Ego Development* (San Francisco: Jossey-Bass 1976).
28. Meux, M. and Chadwick, J. "Procedures in Value Analysis," in Metcalf, L., ed. *Values Education: Rationale, Strategies, and Procedures* in the 41st Yearbook of the National Council for the Social Studies (Washington, D.C.: National Council for the Social Studies 1971) p. 75-119.