Values Reasoning for Critical Thinking: Completing the Process

Abstract

Values reasoning is a multidimensional process designed to help students assess value questions or claims, make defensible judgements about issues and resolve value conflicts. This overall process and sub-processes help students develop critical ways of thinking and dispositions to make wise and effective decisions in different contexts and subject areas. Several sub-processes of values reasoning introduced at the 2005 AAU Teaching Showcase will be reviewed briefly and the remaining sub-processes will be introduced. These include pairing value principles with factual claims, identifying points of view and testing a value judgement with the Universal Consequences and Subsumption Tests. The contribution of these additional sub-processes to critical thinking will be explored.

In the midst of unprecedented social, cultural, economic, technological and political change, university students need to develop critical ways of thinking and dispositions if they are to address contemporary challenges and problems. The early twenty-first century is an era of paradoxes with increasing emphasis on human rights and embracing of pluralism along with increasing violence, alienation and continuing prejudice and discrimination (Rovinescu, 1991). Critical thought and action is much needed in today’s world.

Values reasoning is one process designed to enhance students’ critical thinking by helping them to assess value questions or claims, make thoughtful, reflective and justified value judgements and resolve value conflicts. Previously, MacCleave and Eghan (2006) illustrated how selected sub-processes of values reasoning contributed to students’ open-mindedness, acceptance and respect for diversity, perspective-taking and sensitivity to ethical dimensions of problems.

The entire values reasoning process is complex and requires a considerable time investment to address adequately. Instructors cannot always provide extended blocks of time in a busy term. However, various sub-processes of values...
reasoning that contribute to critical thinking can be employed effectively in a shorter time frame. These can be applied flexibly to a variety of disciplinary or subject matter issues across the humanities, natural and social sciences. Thus, selected sub-processes were introduced in relative isolation before attempting to coordinate them into the whole process (MacCleave & Eghan, 2006).

**Purpose of the Paper**

The purpose of this paper is to complete the values reasoning process by first reviewing the sub-processes introduced at the 2005 AAU Teaching Showcase. These include distinguishing factual claims from value claims, selecting a value claim to explore, locating supporting and refuting factual claims and testing a value judgement with the Role Exchange and New Cases Tests. After this review, the remaining sub-processes will be introduced as follows: pairing value principles with factual claims and identifying points of view. The Universal Consequences and Subsumption Tests will be considered as additional ways to test value judgements. Contributions of these sub-processes to development of critical thinking will also be addressed.

The following is a brief review of the sub-processes introduced at last year’s conference.

**Distinguishing Factual Claims from Value Claims.** Factual claims describe “what is the case”. These claims can be tested for truth and falsity by asking whether the claims are factual, whether evidence exists to support their truth or accuracy and whether sources are reputable.

In contrast, value claims imply a criterion of worth. They cannot be evaluated as true or false but can only be justified through logical argument. Value claims are recognized by an evaluative term such as best/worst, important/unimportant, desirable/undesirable, appropriate/inappropriate and so on. The words “ought”, “must” and “should” signify prescriptive value claims. Thus, all value claims contain a value object (the thing being rated or evaluated) and a value term (the term that indicates worth) (Arcus, 1980; Hultgren, 1980). Consider the following example: Everyone is obligated to live a healthy lifestyle. In this value
claim, the value object is “living a healthy lifestyle” and the value term is the word “obligated”.

**Selecting a Value Claim or Question to Explore.** Students need to identify an overall value question or problem to analyze. They need to give the background and explain why the claim or question is considered a problem within their discipline or profession. The importance of identifying issues or questions to explore was emphasized by Elder and Paul (2005a) who claimed that “it is not possible to be a good thinker and a poor questioner” (p. 3). Recall that a value question or claim is recognizable by the presence of both a value object and value term. Another example of a value claim related to living a healthy lifestyle would be the following: Daily physical education should be mandatory in elementary schools. The value object is “mandatory daily physical education in the elementary school” and the value term is “should”.

Once the overall value claim or question has been identified, it must be clarified to ensure that everyone will share the same understanding about its meaning. Concepts can be defined or examples and non-examples of relevant concepts and terms can be explored. It is difficult to gather appropriate evidence for further analysis if the phenomenon evaluated by the value claim or question is unclear.

**Locating Supporting and Refuting Factual Claims.** Evidence in the form of supporting and refuting factual claims is gathered by reviewing literature related to the overall value claim or question selected for analysis. To provide breadth and depth of insight into the issue, the list of supporting and refuting claims should be comprehensive, logically related to the overall claim and impartial. Although there need not be an equal number of supporting and refuting claims, the overall quantity and quality of claims on both sides of the analysis should be fairly balanced. One-sided or lopsided arguments are not impartial.

Supporting and refuting factual claims are organized in a Reasons Assembly Chart. The overall value claim or question is placed across the top of the chart. Supporting or positive facts are placed to the left of a vertical line in the middle of the chart whereas refuting or negative facts are placed to the right of this line.
This visual line up of claims helps students better assess the relevance and logic of evidence gathered.

To follow is an example of a Reasons Assembly Chart featuring the value question previously stated as a claim: Should daily physical education be mandatory in elementary schools? In this example, supporting and refuting factual claims are presented along with accompanying value principles and points of view. Both value principles and points of view will be further examined in a later section of this paper.

<table>
<thead>
<tr>
<th>Value Question: Should daily PE be mandatory in elementary schools?</th>
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<tbody>
<tr>
<td>Supporting Claims (YES)</td>
</tr>
<tr>
<td>Point of View</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
</tr>
<tr>
<td>Moral Health &amp; Safety</td>
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**Testing the Value Judgement with the Role Exchange and New Cases Tests.**

This was the final sub-process introduced at last year’s conference. These tests will be reviewed when two new tests are introduced later in this paper. Before conducting the tests, it is important to establish the relevance of facts gathered as evidence. This step is taken after students have carefully assessed their factual claims and made necessary changes.
Establishing the Relevance of Facts

There are two ways of clarifying the relevance of factual claims to the overall value claim: 1) Identify and pair a value principle with each factual claim to reveal the reason why the claims is relevant to the overall value claim, and 2) determine the point of view from which each factual claim is made. These sub-processes make the relationship between facts and values apparent and explicit. Facts in and of themselves are just the “tip of the iceberg”. Facts do not stand in isolation as “nuggets of truth”, even if well established, but are positioned or rallied in different ways to provide evidence or support a position or argument in a debate. It is at this point that values enter the picture (MacCleave, in progress).

Theorists critiqued the strict separation of facts and values in positivist versions of research (MacCleave, in progress). The first step in the values reasoning process, distinguishing facts from values, may inadvertently invite the “fact/value separation” critique. However, students of values reasoning are cautioned that the fact/value distinction is complex and ambiguous at times. This separation allows inquirers to decide how best to test or judge a particular claim. The later step of identifying the value principle underlying a factual claim is based on the assumption that a relationship exists between facts and values. The way a fact is positioned in an argument and recognition that facts are aligned with different perspectives or points of view reflect a value orientation (MacCleave, in progress). Value neutrality is not assumed.

What is a Value Principle?

In simple terms, a value principle is the value position behind a particular fact and has two distinguishing characteristics. It is stated as a generalization. That is, the values principle relates a particular factual claim to a broader class of related ideas. The second characteristic is the inclusion of an evaluative term such as a prescriptive term (i.e., should, ought, or must) or descriptive/evaluative term (i.e., such as beautiful/ugly, important/unimportant, good/bad, relevant/irrelevant and so on). This characteristic parallels the use of an evaluative term in the overall claim or question.
Consider the following example:

**Overall Value Claim:** Persons should use scarce resources wisely.

**Supporting Factual Claim:** Food conservation allows more people to be well nourished.

**Value Principle:** Practices that promote health and well-being should be encouraged.


This value principle is stated as a generalization and connects resource use to broader notions of health and wellness. It also has a prescriptive evaluative term “should”.

This value principle example reveals a logical connection between a factual claim and the overall value claim or question. At this stage in the process, students often discover that factual claims that they assumed were negative are actually positive and vice versa. In an earlier version of the values reasoning process, Coombs (1971) noted that value principles “determine whether the facts support positive or negative evaluations” (p. 15). The sub-process of identifying value principles helps reveal the reason why a fact supports or refutes the overall value claim.

The same fact may support or refute an overall value claim or question, depending on the underlying value principle associated with the fact. Consider the following example:

**Overall Value Claim:** Segregated housing should be provided for the elderly.

**Factual Claim:** Segregated housing separates the elderly from other age groups in the community.

**Supporting Value Principle:** It is good for the elderly to be among peers who understand their needs.

**Refuting Value Principle:** It is unfortunate to segregate the elderly because different generations have much to learn and share with each other.

(Adapted from AVER, 1978)
The two different value principles in this example are stated as generalizations and both contain evaluative terms. The supporting value principle includes the term “good” whereas the refuting value principle for the same factual claim features the evaluative term of “unfortunate”. Reasons why the same sentence can be used to either support or refute the overall claim are also revealed in these value principles. For example, being with understanding peers is a supportive reason for segregated housing whereas being isolated from different generations is a reason to refute the overall claim.

To organize value principles in the Reasons Assembly Chart, a second column is made to the left of the supporting factual claims and to the right of the refuting factual claims. Value principles are matched with corresponding factual claims in the chart.

**Contributions to Critical Thinking**

Identifying and pairing value principles with factual claims sensitizes students to the assumptions or value orientations underlying factual claims. They become more aware of the reasons why a claim supports or refutes an issue. If students discover that the facts they labeled as negative are actually positive, they are demonstrating greater depth of thought and enhanced recognition of the logic and relevance of positioning particular facts in an argument in a particular way.

Recall that the value principle is stated as a generalization. Students exhibit breadth of perspective when they are able to relate their factual claims to a broader class of ideas. Depth, breadth, logic and relevance represent important intellectual standards, according to Elder and Paul (2005b).

Engaging with this sub-process may help alter students’ styles of thinking. Elder and Paul (2005a) contrasted dogmatic absolutists, subjective relativists and critical thinkers. Dogmatic absolutists are those who reduce questions and all evidence to matters of fact and seek a single “correct” answer to a question. Subjective relativists believe that answers to all questions are a matter of opinion or preference and one opinion is as good as another. In contrast, critical thinking requires careful reasoning and judgement based on considering both facts and related values. Identifying value principles that connect factual claims to the
overall value claim or question helps students better understand the relationship between facts and values.

What is a Point of View?

Point of view refers to the type of reasoning required for justification. As statements from either side of the Reasons Assembly Chart are compared, the point of view from which each is made must be considered. Awareness of point of view helps to avoid supporting a claim from one point of view with reasons appropriate for a different point of view. For example, if a claim is being made from an economic point of view and is being justified with reasons that are health and safety considerations, then the reasons are not appropriate. Criteria for assessing economic claims typically differ from criteria for health and safety claims.

To follow are examples of common points of view from which claims can be made, followed by a brief description:

- **Moral**: concern with what is just, fair, ethical, moral, right with regard to how other people are treated

- **Prudential**: concern for one’s individual interest with regard to being wise, smart, shrewd, clever in meeting one’s needs

- **Aesthetic**: concern with beauty and appearance with words such as pretty, elegant, and exquisite

- **Health**: concern with physical and psychological safety, health or well-being and safety

- **Economic**: concern with cost and efficiency with words such as cheap, useful, efficient, and functional

- **Intellectual**: concern with truth, reliability, validity and knowledge with words such as scientific, rational, true, accurate, valid, and reliable

- **Environmental**: concern with the state of the environment with words such as clean, non-polluting, and environmentally sustainable
Religious: reflective of views of various formal religions with words such as pious, devout, godly, and doctrine

Ideological: concern with revealing the world view of various competing philosophical stances such as Marxist, neo-liberal, feminist post-structural, and liberal humanist

(Adapted from Hultgren, 1980)

In the values reasoning process, moral points of view, where relevant, take priority over other points of view. Students sometimes confuse moral and prudential points of view. They might need to be reminded that moral points of view are based on the equal and impartial consideration of everyone’s interests whereas the prudential point of view is concerned with what meets one’s own interests.

To further explore points of view, consider the following example:

**Overall Value Question:** Should persons in a vegetative stage be kept on respiratory tubes indefinitely?

**Supporting Factual Claim:** Respiratory tubes keep them alive.

**Supporting Value Principle:** Whatever measures preserve life should be encouraged.

**Point of View:** Moral/Religious

**Refuting Factual Claim:** Keeping vegetative people on respiratory tubes costs taxpayers a lot of money.

**Refuting Value Principle:** It is unwise to spend too much money when results are questionable or uncertain.

**Point of View:** Economic

Identifying points of view has implications for the arrangement of claims in the Reasons Assembly Chart. A supporting claim from a moral point of view should be positioned opposite to a refuting moral claim for the sake of logic. For this reason, claims might need to be reorganized once points of view have been identified. Further, more than one point of view may apply to a single factual claim or question. Ensure that at least one perspective is shared in such cases. If no counter point or contrasting claim from a similar point of view can be found, an empty space is left opposite to the unmatched claim.
Contributions to Critical Thinking

Identifying the point(s) of view related to a fact helps students think about perspective with greater breadth and depth. The meaning of point of view in values reasoning differs from that used by some critical theorists. For example, Elder and Paul (2005b) spoke of point of view as one’s personal perspective or that of others. In values reasoning, point of view refers to the type of reasoning required for justification, whether moral, prudential, economic, ideological and so on. Students learn to examine a claim or question through a number of alternative lenses and that multiple ways exist for examining issues.

They also learn the logic of matching points of view when reorganizing claims by perspective in the Reasons Assembly Chart. That is, a supporting factual claim and related value principle from moral point of view need to be counter-argued or contrasted with a refuting factual claim and related value principle from a competing moral point of view. Thus, identifying points of view enhances the breath, depth and logic of students’ thinking and they become more comfortable dealing with complexity.

Testing a Value Judgement: Introducing Two New Tests

The final sub-process in values reasoning entails testing the value judgement based on examining the factual claims, value principles and points of view arranged in the completed Reasons Assembly Chart. Students need to decide whether the supporting or refuting claims make a stronger case by considering both the quality and quantity or salience of claims presented. For example, five strong claims made from a moral point of view might be considered a stronger case than eight claims made from other points of view.

Four tests are used to ensure making a final decision that is intellectually and morally justified. Each test uncovers different dimensions of the values issue explored since these tests are drawn from competing philosophical theories. Rather than trying to resolve age-old philosophical disputes, values reasoning allows us to examine pragmatically what each test might reveal about a particular value judgement.
Previously, MacCleave and Eghan (2006) introduced the Role Exchange and New Cases Tests. These tests will be reviewed briefly and two new tests will be introduced: the Universal Consequences and Subsumption Tests.

The **Role Exchange Test** focuses on the consequences to others inherent in the final value judgement. This test helps students consider who would be the most advantaged and who would be the least advantaged if a value judgement were accepted. It also asks students whether they would be willing to trade places with the most disadvantaged in this situation.

The **New Cases Test** helps students consider the impact of changing contexts and circumstances on a particular value judgement. Students are asked to imagine alternative situations where their judgement might apply and whether they could accept its application in a new situation.

**Universal Consequences Test**

The Universal Consequences Test helps students consider how broadly or universally their value judgement can be applied. They need to consider the impact or consequences of accepting their value judgement and related actions if everyone were doing the same thing everywhere. According to MacCleave (1995), “a decision that might be acceptable for a local situation may have disastrous consequences if more broadly applied and vice versa” (p. 44). This test poses the following questions: What would happen if everyone did that? How would you like it if everyone did that?

Some students find that it helpful to reverse the question and ask: “what would happen if the value judgement were rejected by everyone, everywhere?” When considering the intellectual and moral defensibility of a value judgement, it is a good idea to compare it with other alternatives. This test can raise ethical issues that were not thought of when considering the factual evidence gathered to support or refute a claim or when using the other tests.

**Subsumption Test**

The Subsumption Test helps students consider whether their value judgement follows from a higher order principle. Remember that moral claims take
precedence over claims from other perspectives such as intellectual or aesthetic. If one were faced with two or more conflicting moral claims, Cox (1981) recommended that the claim that is life confirming should take precedence “except in cases where life confirmation would result in drastic loss of justice or freedom, or quality of life or would result in severe or unending suffering” (p. 249). An example of a higher-order principle being followed is the case of a high school counselor whose student client confides plans to commit suicide. The counselor’s choice is between maintaining confidentiality versus the possibility of loss of life for the student if the plans are ignored and intervention is not pursued. As the higher-order principle, protecting life would take precedence over maintaining confidentiality. In anticipation that such conflicts may arise, counselors often advise students of the limits of confidentiality.

To apply the Subsumption Test to your value judgement, the following questions are posed: Is there a higher order principle involved in this judgement? Is the judgement logically related to this higher-order principle? Is this higher-order principle acceptable? Should this higher-order principle take precedence over competing principles?

Testing a tentative value judgement takes place before making a final judgement to accept, modify or reject the overall value claim or question examined. Modifications to the original value judgement are often generated through the testing process.

**Contributions to Critical Thinking**

The Role Exchange Test encourages perspective taking and empathetic understanding through assuming the role of another imaginatively. The New Cases Test encourages students to be open to changing contexts and circumstances. The Universal Consequences Test helps students think of the results of their values reasoning in more universal terms. They gain a perspective on how broadly or narrowly their value judgement can be applied. Finally, the Subsumption Test helps students make more sensitive and defensible judgements. They must prioritize points of view by giving precedence to life-confirming values (Cox, 1981). They must also discern the salience of competing moral points of view. Adjudicating between competing
moral principles requires complex thought and the ability to deal with uncertainty. Even if students encounter issues that are difficult to resolve, testing value judgements helps them to better understand the supporting and refuting sides of an issue and their moral basis.

Conclusion

The values reasoning process has much to commend it in terms of developing students’ critical thinking. Experiences with this process help students develop greater depth and breadth of thinking. They also become more familiar with common standards of rationality and the use of logic in taking a reasoned position on an issue. The standards of coherence and relevance are also central to values reasoning.

The only drawback to this process is its complexity. Learning the values reasoning is time consuming and may initially be overwhelming for some students. If they persist, however, students usually realize the benefits of the process and take pride in the growth of their critical thinking. To ease students into the process or to develop critical thought within a limited time frame, it can be helpful to introduce selected sub-processes of the overall process. As one example, students may already be familiar with participating in a debate. They could test the results of the winning position by using the four ethical tests associated with values reasoning.

There are countless possibilities for adapting values reasoning for use across different subject areas and disciplines. The benefits of adopting values reasoning in whole or in part far outweigh the demands.

References


