Traditionally, philosophers have viewed critical thinking as a reasoning tool for guiding and helping people arrive at truth and certainty. Recent feminist theory suggests that critical thinking involves not just doubt but also believing. This paper examines: (1) the traditional views of critical thinking (methodological doubt); and (2) historical views of methodological believing. The paper discusses Peter Elbow's "Methodological Doubting and Believing: Contraries in Inquiry" (Embracing Contraries, 1986) and Belenky et al's procedural knowing (Women's Way of Knowing, 1986). Postmodernists such as Rorty seriously question whether it is possible to arrive at truth or certainty. This analysis suggests it is possible to arrive at trustworthy knowledge through the use of consensus and judgment. It is possible to reach consensus and judgment once there is communication and understanding. Communication and understanding can only occur when an individual has attempted to believe an idea or thought with care and honesty. Once a person has been fair to an idea, then it is possible to use critical thinking (doubting) to help make a judgment about the quality of the idea. Believing alone leads to naive thinking and indoctrination. Doubting alone leads to closemindedness and loss of creativity. Together, they lead to constructive thinking which integrates the inner voice and the voice of reason. (SM)

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DOUBTING and BELIEVING:
Contraries or Complementaries in Inquiry?

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Introduction

Traditionally, philosophers have relied on an operating paradigm of critical thinking that can be traced back to the Greeks. It is a paradigm that stresses critical thinking is a skill which uses logic as its tool, and, as a skill, needs to worked on and developed. The critical thinker tries to remove his voice/ perspective from the inquiry process and remain unbiased and objective, as he works to systematically doubt what others believe, hoping to therefore be able to separate facts from opinions and beliefs. Critical thinking, as described, is used as the reasoning tool to guide and help philosophers (or others using critical thinking) arrive at Truth and Certainty. Yet work in feminist theory is drawing attention to the idea there is more to critical thinking (traditionally considered a masculine approach to thinking) than doubting, there is also believing (traditionally considered a feminine or childlike, naive approach to thinking)\(^1\). I wish to work with these ideas in this article. I want to examine critical thinking (doubting) as it has been traditionally considered, and believing as it has been represented in the past. Then I would like to show the signs of change by looking at Peter Elbow's "Methodological Doubting and Believing: Contraries in Inquiry" (Embracing Contraries) and Belenky et al's "procedural knowing" (Women's Ways of Knowing). I would like to conclude with my own suggestion that doubting and believing are not contrary forms of thinking, but are complementary, two sides of the same coin. Both are needed to attempt to arrive at trustworthy knowledge. I am
hoping to help shift the focus in critical thinking theory from the current emphasis on doubting to a perspective that includes and values believing.

**Doubting and Believing: the Traditional Approach**

Let me begin by examining critical thinking (doubting) as it has been traditionally considered, and believing as it has been represented in the past. Modern philosophy, tracing its roots back to Aristotle, has relied on the notion that scientific progress means "finding out what the world is really like" or accurate representation of a reality external to human knowledge. Critical thinking has been the tool used to attempt to arrive at an accurate representation. Critical thinking helps the reasoner clarify thoughts, make them more precise and coherent, test them for correspondence to experience, and therefore be able to know they are correct. Critical thinking, as represented, protects the reasoner from false beliefs, indoctrination, or just taking things on faith (i.e. believing). Critical thinking causes one to be leary and skeptical of arguments that may be faulty, and deceptive. Socrates warned us about the Sophists who were able to use ideas to be persuasive, and how one had to be a critical thinker in order to avoid being deceived, or tricked.

Postmodernists, such as Rorty's central challenge to the modern tradition, have dealt with this claim of being able to accurately represent reality. That anyone has privileged access to Truth and Certainty has been called into suspicion. Rorty, and others such as Kuhn, have made us well aware of the fact that we are all contextual knowers, we are all affected by political, social, psychological, and historical forces, and cannot represent ourselves as neutral agents of knowledge. Yes, we have experiences we can test for correspondence, and ideas we can check for coherence, but there is a subjective side to all of this we can never dismiss. We can never get out of our skins, and lose our "I", we can never stop filtering what we know through our contextuality of time and place. Indeed, who we are has been developed through the
context of being social beings, who use language and language-based thinking. Due to this understanding, a representational theory of knowledge has been abandoned, the "truth" of the text is no longer any more significant as a criterion of adequacy than other contextual variables, such as political, social, psychological and historical variables.

With the loss of faith in reason's ability to lead us to Truth and Certainty that postmodernism has brought on, this new vantage point seems to have put us in a position of doubting everything. The quest to find absolutes by means of critical inquiry has proven unfruitful, and relativism abounds. We are finding ourselves doubting even our tools and ability to think critically. The lesson that needs to be learned from postmodernity is that human language and language-based thinking is relative, not that the universe is relative. This is actually not that new of a lesson, critical theorists have taught us the fallibility of human beings, and pragmatists like Peirce, with his notion of fallibilism, have suggested Truth, or Absoluteness, is something we can only hope to continually grow closer to an understanding of, as we gain more knowledge, and share that knowledge with each other, testing it out and improving on it all the time. The other lesson that needs to be learned, from people like Kuhn, is that critical thinking, as doubting, only leads to disconfirmation of truths, and increased perplexity. It doesn't lead to something new or progressive; only human ingenuity can overcome this through creativity and imagination, in other words, through being willing to believe new ideas.

There are examples we can find from our past of critical thinking that stressed not just doubting, but also believing. One of those examples goes back to the beginning of the development of the western Greek paradigm of thought, Socrates. He offers us an ancient model of doubting and believing, just as Dewey offers us a more recent, pragmatic model of one who resisted the dichotomous thinking that underlies much of the modern search for truth. Socrates was an astute critical thinker,
who was capable of finding fault with others' arguments, uncovering inconsistencies, and presenting counterexamples to the ideas expressed by others. This was the standard format to the elenchus part of his dialogues. But Socrates was not just good at doubting, he was also willing to try on others ideas, and believe another's answer. Socrates' favorite pastime was to discuss ideas in the marketplace, literally! He never claimed to know The Answer, and one can find examples of dialogues where Socrates is in the role of the student, with another convincing him, as in *The Protagoras* 5. The purpose of the elenchus was to get the other participant in the dialogue to doubt his own knowledge enough that he was open to trying to learn, willing to believe other possibilities. All of us know, as teachers, that one cannot teach someone something if they think they already know the answer. One cannot get a student to be willing to try on a new idea if they think the old one is right.

Dewey is a more recent model of the importance of not just doubting, but also believing, in critical thinking (what he labeled "reflective thinking"). 6 Reflective thinking involves having doubts arise, problems surface that one realizes need solving. One researches the problem and suggests a possible solution. The suggestion, or hypothesis in the scientific model Dewey was drawing from, is the act of potential belief. It is the effort to try on a solution and see if it fits. One then has to test out the potential solution in the marketplace of ideas. Truth, for Dewey, was warranted assertability; the idea that we could know something for certain, as Descartes had hoped to find (through his method of systematic doubting), was itself doubtful. What we could hope for is to arrive at the knowledge we could most likely count on, at the time, the knowledge that was most trustworthy, and warranted our belief. For Dewey, knowledge had a very fluid, growing quality to it, it was not fixed and certain.

It is the dichotomous way of thinking that has historically placed men in the role of being rational doubters, and women in the position of being naive believers. Like children, women have been presented as gullible, simple-minded creatures, rather
than intellectual skeptics. But along with the questions at postmodernism has ignited about critical thinking, feminist theory has ignited questions concerning the sexist practice of placing women in the role of believers. The important thing I wish to note, as other feminist theorists have noted, is not that women want to lose the role of being believers, for I think believing is a vital aspect of critical thinking that needs to be stressed, which is the central point of this paper. Women, such as myself, want to raise the status of believing, show how important it is, and end the dichotomous way it has been pitted against doubting. And women don't want to be falsely categorized as only believers. Women, if adapt at the skills of believing, have the opportunity to show others, including men, the wonderful, accepting, open-minded, playful qualities believing offers. Believing breathes life into critical thinking, whereas doubting, alone, only can take it away.

Contraries

In this section I would like to show the signs of change, and problems as a result of looking at critical thinking as involving doubting and believing. I will begin with Belenky et al's "procedural knowing" (Women's Ways of Knowing, 1986), and then turn to Peter Elbows "Methodological Doubting and Believing: Contraries in Inquiry" (Embracing Contraries, 1986).

In Women's Ways of Knowing, the Development of Self, Voice, and Mind, by Belenky, Clinchy, Goldberger, and Tarule, a theory of epistemology is presented, based on five years of resea on interviewing women from all classes, races, family backgrounds, and levels of education. The theory strives to present women's ways of knowing, consciously avoiding the exclusion of ways of intellectual development that don't fit the male experience. Of the five categories Belenky et al present, the one that represents critical thinking, and highlights the distinction between doubting and believing I wish to examine more carefully, is procedural knowledge. Procedural
knowledge, or reasoned reflection, is the voice of reason. It is a humbler, softer, more powerful voice. Procedural knowers seek to understand other people's ideas in the other people's terms rather than in their own terms. The procedural knower believes intuitions may deceive, they can be irresponsible or fallible. She also believes some truths are truer than others, truth can be shared, and that you can know things you've never seen or touched. Procedural knowers learn to engage in conscious, deliberate, systematic analysis. They also learn that truth is not immediately accessible. They speak cautiously, acquire and apply procedures for obtaining and communicating knowledge, look at different perspectives, world views, and learn to become more objective. Procedural knowledge focuses on the development of skills and techniques for finding truth, it emphasizes method and form, not content. Procedural knowers are practical, pragmatic problem solvers. 9

Within procedural knowledge, there is a distinction that can be made between separate knowing and connected knowing. Carol Gilligan's work was the guide for these two ways of knowing. In separate knowing "the separate self experiences relationships in terms of "reciprocity," considering others as it wishes to be considered." With connected knowing, "the connected self experiences relationships as "response to others in their terms." The heart of separate knowing is critical thinking. The goal is to doubt, to assume that everyone, including I, may be wrong. It takes on an adversarial form, a debate, in which the goal is self-extrication, to avoid projection by suppressing the self and taking an impersonal stance. The voice is specialized and speaks a public language. 10 This form of procedural knowledge can be identified as traditional critical thinking operating on the Greek paradigm that stresses critical thinking as a process based in logic where facts are separated from opinion, by systematically doubting what others believe to be true. The thinking is seen as an activity in which the critical thinker tries to remove his voice/perspective from the inquiry process and remain unbiased and objective.
Connected knowing, as the other form of procedural knowledge, "builds on the subjectivists' conviction that the most trustworthy knowledge comes from personal experience rather than the pronouncements of authorities."\(^1\) It allows the self to participate, and develops procedures for gaining access to other people's knowledge, through sympathy. Instead of stressing doubting, it stresses believing. The connected knower refuses to judge, but rather tries to understand the other person's situation, and ways of thinking, by using personal knowledge. Personality adds to the perception, and therefore, to be an adept connected knower, one must know one's own point of view. Self-analysis is required for complex connected knowing. Like Nel Noddings's "care," it entails "generous thinking" and "receptive rationality."\(^2\)

"Authority in connected knowing rests not on power or status or certification but on commonality of experience. "\(^3\) This form of procedural knowledge tends to bring out a more supportive, sympathetic approach, and can be identified as a form of critical thinking that begins to move away from traditional critical thinking, by emphasizing believing, not just doubting. The problem for either of these forms of procedural knowing is that the goal is to seek to understand other people's ideas in the other people's terms, rather than in one's own terms. Procedural knowers "feel like chameleons," able to remove their own voice to understand others' points of views, but in the process, their own sense of identity becomes/is weak. The problem is that doubting alone leaves no room for subjective voice, and the acknowledgment of what the knower brings to the experience, and believing alone leaves no room for the opportunity to rely on agreed upon standards for judgment (the expert voice) as well as putting the self in the position of potentially weakening or losing her own voice, in the effort to believe another's.

Peter Elbow's "Methodological Doubting and Believing: Contraries in Inquiry"\(^4\) also focuses on the distinction between believing and doubting in inquiry. He starts by giving Descartes credit for systemizing doubt and for linking certainty with
knowledge, that if something is not certain, it's not knowledge. Then he points out how postmodern thought has brought us to the position of realizing that certainty is very likely beyond our reach, but maybe our epistemological job is just to find out what knowledge is most trustworthy. How can we arrive at trustworthy knowledge, this is Elbow's central question, and his claim is:

"that methodological doubt is only half of what we need. Yes, we need the systematic, disciplined, and conscious attempt to criticize everything no matter how compelling it might seem- to find flaws or contradictions we might otherwise miss. But thinking is not trustworthy unless it also includes methodological belief: the equally systematic, disciplined, and conscious attempt to believe everything no matter how unlikely or repellent it might seem- to find virtues or strengths we might otherwise miss." (p. 257, his italics)

Elbow argues that both doubting and believing derive their power from the fact that they are methodological. For with methodological belief, as he defines it, it is "the disciplined procedure of not just listening but actually trying to believe any view or hypothesis" that someone tries to advance. (p. 260) We know that "even though we can't "really" stand outside our own point of view or get away from our beliefs, we can artificially do so, partially or hypothetically, in an act of imagination or game-playing - and by doing so give a considerable jog to our "real" position." (p. 269) That is how Elbow arrives at calling this doubting and believing methodology a game. By thinking of the believing side of inquiry as a game then one doesn't have to feel like the point of believing is to "swallow anything." After trying on the ideas, and attempting to believe them, then one uses one's judgment in order to decide if one agrees with them or not.
The believing game is much like what I described earlier with Dewey's reflective thinking, in that one has a doubt that arises, and then one tries to seek a solution by trying different potential answers (beliefs), and then judging which one is most correct. Only, with Elbow's presentation of the believing game, he recommends it is best done with a small group of people who trust each other. What's important about this is Elbow's understanding that to arrive at trustworthy knowledge, instead of certainty, one can't do so by oneself, as Descartes practiced his methodological doubting in solitude. For methodological belief, one needs a community of people who will try in good faith to enter into views they disagree with. The effort must be genuine, and the belief must be a "yes saying" in order to assure one really understands, even though it is a provisional or hypothetical assent.

Methodological doubting is like separate procedural knowing. Methodological believing is like connected procedural knowing. And the same criticism that was brought out in the discussion of procedural knowing can be presented here. In order to seek to understand other people's ideas in the other people's terms, rather than in one's own terms, methodological believers or doubters "feel like chameleons," able to remove their own voice to understand others' points of views, but in the process, their own sense of identity becomes/is weak. Elbow acknowledges some people will find his methodological believing, and the distinction he has drawn between believing and doubting, artificial. At our best we should operate using both, as thinkers. But his point is that we don't often operate at our best, and it may make us better inquirers to practice each skill separately.

My goal, in explaining the distinction made between procedural knowledge, whether it is separate or connected, and comparing procedural knowing to Elbow's contrary thinking is to point out important qualities of thinking which need to be integrated. In fact, doubting and believing are not contrary to each other, from a larger perspective of constructive thinking, they are both necessary and complementary to
each other, like the Eastern yin/yang. Both are needed to attempt to arrive at trustworthy knowledge.

**Complementaries**

What Belenky et al found in their study of women's ways of knowing was that there were some women who described their approach to knowledge such that it involved both doubting and believing. This approach was labeled "constructive knowing" by Belenky et al. My sense of critical thinking, as I am attempting to reconstruct it, is that it must involve subjective and objective voice, the critiqueing of ideas as well as the willingness to "temporarily believe" and try on ideas. It is what I think Belenky et al were calling "constructive knowing," and so I have chosen to adopt their term. Let me describe constructive knowing, as Belenky et al present it, and then add a further explanation of how doubting and believing work together.

Constructive knowledge is an attempt to integrate the voices, to reclaim the self, and attempt to integrate personal knowledge and expert knowledge. The basic insight that constructed knowers come to is "All knowledge is constructed, and the knower is an intimate part of the known." (p. 137) Theories are models for approximating experience. To be a constructed knower, one needs a high tolerance for internal contradiction and ambiguity, one needs to learn to live with conflict. The constructed knower has to abandon the either/or thinking of procedural knowledge, and search for a unique and authentic voice. The constructed knower moves beyond systems, but puts systems to her own service. "When truth is seen as a process of construction in which the knower participates, a passion for learning is unleashed." (p. 140)

Characteristics of the women identified by Belenky et al as constructed knowers were:

- the opening of the mind and the heart to embrace the world
becoming and staying aware of the workings of their minds was vital to their sense of well-being

- the potential to be empathic, attentive, caring of people, written word, even impersonal objects

- the establishing of a communion with what they are trying to understand, and the using of a language of intimacy to describe the relationship between the knower and the known

- the use of "real talk" (instead of didactic talk), conversation where domination is absent, reciprocity and cooperation are prominent, where the goal is to share one's ideas and the process of one's thinking. Doubting is still used to test ideas, but believing is used more, to "get a feel for" ideas. Believing suspends doubt in order to understand and arrive at meaning. 15

- question posing is central to the constructivist's way of knowing

- the moral response is a caring response (pp. 141, 143, 146)

The point of this description of constructive knowing is to show how, for these women, doubting and believing are not viewed as polar opposites, but are used together, as complementary skills, to help one construct knowledge. Constructive knowers are able to use these skills so well, it seems, because they have learned to value their own subjective voice; one might say they have learned the lessons postmodernism is teaching us. They know that what they bring to the text is just as important as the text, itself, and they also know that what they bring is affected by their context, and so must be continually reviewed, reexamined, and reconstructed.

Belenky et al and Elbow both present what I am calling constructive knowing as something that is fleeting and hard to come by. It is presented by Belenky et al as something that is developmental, or hierarchical in nature. And Elbow says only the best of our inquirers are able to use doubting and believing fluidly, together, to arrive
at trustworthy knowledge. They also tend to stress doubting and believing as contraries, rather than as complementary skills. I see both of these tendencies as problems in attempting to describe what happens when we think, and I believe Dewey would agree with me. What makes a theory of constructive thinking so powerful, is the understanding that this is what has to occur for one to be inquiring at all. Dewey's description of reflective thinking was not something that only the best thinkers are capable of, it was what we all do whenever we try to solve a problem.

The point, and force, behind an argument that critical thinking involves doubting and believing is that one isn't thinking critically if both of those qualities aren't there. This is important, for it means that all of us must make a commitment of attempting the understanding of others' points of view, and none can afford to be left out. All of us need to attempt to say "yes," to assure to the best of our ability that we understand, before we critique and potentially say "no." The balance doubting/believing together offer, and the model of constructive theory I have presented here, is very important because it opens the doors wide to all people and points of view. It encourages contribution by all to the conversation on what can be considered agreed-upon knowledge. It makes possible creative and new suggestions, even though they may not be fully developed yet, because there is a commitment to attempt to understand an idea before one judges it right or wrong, and in that understanding can come added clarity and focus, etc. These suggestions will encourage constructive thinking, equality, and the development of responsibility and caring. The shifting of emphasis to include believing in a model of critical thinking theory is something that is vital to educational studies in America, and the multicultural world in which Americans live.

**Conclusion**

That we can arrive at Truth or Certainty has been seriously questioned by postmodernists such as Rorty. What we can arrive at is trustworthy knowledge.
Trustworthy knowledge can be derived through the use of consensus and judgment. Consensus and judgment can only be reached once communication and understanding has occurred and communication and understanding can only occur when one has attempted to believe an idea, a thought, to try it on with care and honesty. Once one has been fair to an idea and tried to openly understand it, then one can use critical thinking (doubting) to help make a judgment about the quality of the idea. Believing alone leads to naive thinking and indoctrination. Doubting alone leads to closemindedness and loss of creativity. Both of them together lead to constructive thinking, a view of critical thinking which stresses an integration of the inner voice (the subjective, intuitive, believing voice) and the voice of reason (the objective, critical, doubtful voice). The relational epistemology constructive thinking relies on is trustworthy knowledge which is validated by being able to understand different voices and arrive at a judgment that can be trusted because it is a consensus/integration of those voices. Such an epistemology depends on an educated, equally respected, autonomous community of thinkers who are able to use the constructive knowledge they have had the opportunity to develop, along with being able to relate to each other through an ethic of caring. This does not imply agreement, necessarily, but it does imply conversation, in a supportive manner, so that knowledge has a chance to blossom and grow, and evolving truths have the opportunity to emerge and develop.

ENDNOTES

1. There is much written about the traditional paradigm of rational thought by feminist writers. See, for example: Carol Gilligan, *In a Different Voice* (Cambridge: Harvard University Press. 1982)


7. See footnote 1.


9. Ibid., p. 97.

10. Ibid., p. 102, 104, 108, 109, 111.

11. Ibid., p. 112, 113.

12. Noddings, 1984


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