“It's all good”:
Moral relativism and the Millennial Mind

Zachary Stein
Developmental Testing Service, LLC
zstein@devtestservice.com

Theo L. Dawson-Tunik
Hampshire College
Developmental Testing Service, LLC
tdawson@hampshire.edu

October 8, 2004
“It’s all good”: Moral relativism and the Millennial Mind

Zachary Stein
Developmental Testing Service, LLC
zstein@devtestservice.com
Theo L. Dawson-Tunik
Hampshire College
Developmental Testing Service, LLC
tdawson@hampshire.edu

In this paper, we report on the results of a study of relativism in the moral reasoning of 122 schoolboys, 72 of whom were interviewed in the 1950s and early 1960s and 50 of whom were interviewed in the 1990s. We pose three research questions: (1) Are there cognitive developmental differences between the moral judgment performances of adolescents growing up in the 1950s and 1990s? (2) How is the phenomenon of moral relativism manifested in these interviews and how is it affected by cognitive development? (3) Does moral relativism increase from the 1950s to the 1990s?

This research was inspired by two claims made about recent changes in adolescent thinking. The first of these is the notion that adolescents are somehow smarter today than they were a few decades ago. The second is that the emphasis on multiculturalism and racial equality that began to take hold during the latter half of the 20th century has led to both greater moral relativism (Ogilvy, 2002) and increasing fundamentalism (Gardner, 2004) in today’s youth. Both of these claims, if they are accurate, have important implications for today’s workplace.

We begin by reviewing literature on the intelligence of contemporary adolescents. We then move into a discussion of relativism. Here, we (1) explore the way in which current macro-social trends may be saturating the contemporary adolescent experience with relativism, (2) review the psychological literature on relativism, (3) offer perspectives on different forms of relativism from both psychological and normative frames of reference, and (4) discuss the implications of relativistic epistemologies for the workplace. We follow with a description of our research methodology, and report on the results of our comparison of the moral epistemologies of two cohorts of 13- to 18-year-olds. Finally, we discuss the implications of our findings and offer suggestions for accommodating and optimizing the epistemologies of the emerging generation through institutional reforms.

Smarter faster?

As one wades through the growing popular literature about Millennials (Howe & Strauss, 2000; Strauss & Howe, 1991)—the first generation to come of age in this century—one theme emerges: This generation is smarter than previous generations. Simply put, the popular view is that the Millennials are the first generation to adapt instinctively to the intellectual demands of our high-tech post-industrial society (Howe & Strauss, 2000; O’Reilly, 2000; Strauss & Howe, 1998). This literature is exciting, bold, and in the end, refreshingly optimistic. It presents a scenario in which society, propelled by historical forces, is sent hurtling into the future along a crisis-ridden trajectory. Within this context, each new generation is understood as coming of age by adapting to its historical moment. In keeping with this trend, Millennials are already showing signs of rising to the challenges of contemporary times by adapting to today’s information rich and highly complex technological and cultural innovations. They are becoming “smarter quicker” and honing the skills that will prepare them for the social upheavals ahead. They are poised as the “next great generation.” The authors, of course, don’t claim it is a sure bet (although a rhetoric of “fate,” “prophesy,” and “destiny” could lead one to think otherwise). They suggest ways to catalyze the adaptation of this up and coming generation without interfering with, mislabeling, or undermining their unique qualities and capabilities.
This perspective certainly resonates with intuitive and common sense notions of how the histories of individuals and cultures are shaped. It also caters to our hope that Millennials will have some unique advantage that will allow them to find solutions to the problems they have inherited from their elders—a hope that may be fueled in part by the guilt that accompanies passing on problems to those who are not responsible for their creation. We must admit that the current stage set by history is making great demands on those who will be tomorrow’s leaders, particularly with regard to their intellectual capabilities. However, in light of this, it appears that these popular authors are seduced by the hope offered in their theoretical logic of generational adaptation. In fact, they give only circumstantial evidence in support of the idea that Millennials are adapting to the current situation through positive intellectual mutation. Given the bold nature of their hypothesis and the importance attached to it, gathering strong and convincing evidence should be a high priority. Yet, one finds that they offer only an ad hoc synthesis of information gathered from often questionable sources.

In support of this claim that the popular literature lacks rigor, we site a 2002 report of the Division of Behavioral and Social Sciences and Education in the National Research Council of the National Academies. It concluded the following:

[C]ritical features of the popular writing on generations run counter to scientific findings. First, the notion of distinct generations with clear differences between them is not supported by social scientific research. Second, contrary to claims of large and dramatic differences among youth cohorts in different generations, high-quality longitudinal research documents a high degree of stability in youth attitudes and values. Change is limited, and when it does occur, it occurs gradually. In addition, the popular literature is often based on selective, not systematic data and analysis and on nonrepresentational samples... [Third] we question the specific claims regarding characteristics of the current youth cohort [e.g. the Millennials], such as claims that this cohort differs dramatically on dimensions such as team work, [academic and intellectual] achievement, modesty, and good conduct. We do not assert that all of the conclusions drawn in the popular literature are incorrect; some of the insights and impressions may prove to be accurate. We do advise against an uncritical acceptance of [the] claims... and encourage careful examination of their scientific bases... (*Appendix B: letter report: the scientific basis of the popular literature on generations,* 2003)

Looking into one of the “high-quality longitudinal” studies mentioned by the Council reveals a more detailed and sobering picture of the Millennials. The Alfred P. Slone Study of Youth and Social Development (Csikszentmihalyi & Schnieder, 2000; Schnieder & Stevenson, 1999) was a large scale, national study carried out during the 1990s. For five years, it followed 1,221 students, originally enrolled in the sixth, eighth, tenth and twelfth grades. The study was designed to gain a “holistic” picture of adolescents' experiences within social environments—peer groups, schools, and families. The schools and students were carefully selected to insure they offered a representative cross-section of the population as reflected in census demographics. Data included responses to in-depth interviews and a variety of questionnaires.

The robust double-edged finding was that: (1) today's adolescents have unprecedented educational and professional ambitions, but (2) they do not comprehend the complexities of the world they are joining, specifically with respect to the transition between education and the world of work. The first half of this finding points to evidence that unprecedented numbers of our youth are attending or anticipating attending college with the goal of becoming professionals of some kind. The numbers say it all; “Today, more than 90 percent of high school seniors expect to attend college and more than 70 percent expect to work in professional jobs. Four decades ago the picture was quite different, with only 55 percent expecting to attend college and approximately 42 percent expecting to work in professional jobs” (Schnieder & Stevenson, 1999).

The second half of the finding concerns the transition to adulthood. It appears that the complexities involved in navigating the job market and the adult world remain mysterious to adolescents, even as they choose colleges and majors in hopes of attaining degrees for particular careers. The majority of “emerging adults” do not have a realistic view of life after college. They harbor gross misunderstandings about the type and extent of education
needed for the lives they desire, and have virtually no knowledge of the kinds of professional opportunities that are available (Csikszentmihalyi & Schnieder, 2000; Schnieder & Stevenson, 1999). Other researchers have identified similar trends (Arnett, 2000; Kerckhoff, 2002; Mortimer & Larson, 2002a).

These results tell two conflicting stories, both of which are backed by solid evidence. Historically unprecedented numbers of students are streaming into universities hoping to become professionals. The popular literature has seized upon this trend, reporting on the confidence, intellectual ambitions, and positive outlook of the Millennials, who are seen as not only ambitious, but as actively working to become more intelligent and to contribute to the public good. However, the evidence also suggests that many Millennials will fail to realize their ambitions or actualize their potentials. There are no mechanisms in place—be they internalized psychological competencies or institutionalized steering functions—that can orient emerging adults towards mature, productive adulthood in an increasingly contingent, complicated, and demanding socioeconomic environment.

It appears then, that, despite the popular literature and our hopes to the contrary, most evidence (including what we demonstrate here) presents the Millennial generation as not being some how miraculously adapted to the complexities our postindustrial and informational society, which is to say, the Millennials are not becoming smarter faster. Instead, they appear to be in over their heads (to borrow a phrase from developmental psychologist Robert Kegan) (Kegan, 1994).

**Intelligence and cognitive development**

The cognitive developmental research tradition lends moderate theoretical support for the notion that historical circumstance can reach through biological and cognitive constraints to speed the growth of intelligence. Though cross cultural studies provide evidence that the rate of intellectual development is affected by social and educational environments (Colby & Kohlberg, 1987a, Piaget, 1995), there are also clear biological constraints that influence the rate of cognitive development. Evidence of this can be found in contemporary research correlating cognitive development with changes in brain states (Fischer & Bidell, 1998). This research shows that the process of becoming intelligent is *physiologically arduous*. It depends not only on the experiential educational processes and problem solving we traditionally associate with learning, but also on biological and neurological processes, which both facilitate and constrain intellectual development. This means that increasing one's intelligence is not just a matter of acquiring new information and skills; it is also a matter of neurological restructuring. So, to suggest that an entire generation has managed to become smarter faster is also to suggest that this generation has manifested accelerated brain development.

In our research we employ an explicit model of intelligence informed by the cognitive developmental tradition of Piaget and his successors. In the cognitive developmental tradition, intelligence is neither a unitary nor a fixed state. Cognitive developmentalists define a spectrum of possible cognitive capabilities spanning a developmental hierarchy of increasing complexity and integration (Commons, Trudeau, Stein, Richards, & Krause, 1998; Fischer, 1980; Piaget, 1985). Within this framework, higher *developmental levels* are a central component in the expression of greater intelligence.

**Relativism**

*What is relativism?*

It is generally held that there are two types of relativism, *cognitive* and *ethical*. Cognitive relativism is a label given to a variety of views that question the existence of *universal truths*. These views maintain, in different ways, that *facts* and *truths* about the world do not reflect actual realities: the world cannot be *known*; there are merely different ways of interpreting it. Ethical relativism, on the other hand, is a label given to a variety of views that question the existence of *moral universals*. These views maintain, in different ways, that there are no moral principles or guidelines by which everyone is obligated to live; what is ultimately "good"
or “just” cannot be determined; and there are different ways of interpreting what it means to be moral.

These two sets of views have not always been as hotly debated at they are today (Gowans, 2004; Hollis & Lukes, 1982; Krausz, 1989; Meiland & Krausz, 1982; Swoyer, 2003). Before the mid-to-late twentieth century, relativism was not articulated and debated as such. However, it is by no means unprecedented in the history of ideas. For example, in ancient Greece the sophist Protagoras, who is famous for his dictum, "man is the measure of all things," expressed doctrines that could be considered relativistic (Meiland & Krausz, 1982).

Yet, historically speaking, skepticism, the view that there is no valid knowledge at all (the position of the Pyrrhonian skeptic Sextus Empiricus), has been more common than relativism, the view that knowledge or truth is relative to persons, cultures, societies, frameworks, etc. (Gowans, 2004).

Explicit relativism is a child of modernity. In the modern era, Europeans building colonial empires began to self-consciously encounter the radical diversity of moral values and worldviews held by non-Western cultures. We say these encounters were self-conscious because, unlike previous multi-cultural empires (such as the Roman Empire), the Europeans institutionalized the academic study of diversity, most notably in the field of cultural anthropology. Early anthropology proceeded under the assumption that the Western worldview and ethic (i.e. scientific and Christian) were superior to those found in "primitive" cultures, which were becoming the focus of detailed empirical study. But that changed, beginning with the work of Franz Boas and his students (Ruth Benedict, Melville J. Herskovits, and Margaret Mead), who began to articulate influential and convincing arguments in support of relativism (Gowans, 2004). In fact, in 1947, in conjunction with the United Nations debate about universal human rights, the American Anthropological Association issued a statement declaring that moral standards are relative to cultural and societal frameworks, and that there is no way of demonstrating that the values and morals of one society are better than those of another (“Statement on Human Rights,” 1947). This could be considered the birthday of ethical relativism.

Today debates on relativism have seeped into almost all fields of inquiry. More important for the focus of this study, however, is the fact that in postindustrial informational societies forms of relativism have found their way into the everyday life-world. Relativism is being woven into the web of shared cultural common sense—knowledge that we take for granted (Habermas, 1984, 1987). The evidence for this is everywhere. For example, multiculturalism is now a curricular agenda in schools; seemingly contradictory scientific claims are debated in the public sphere (e.g. nutrition, global warming, etc.); religious pluralism is the norm; popular culture is imbued with ethnic, regional, and individual diversity; and we are exposed to multiple media sources and perspectives. We obviously don't live in a world were everyone sees things in the same way.

What is not so obvious is how these trends are affecting the first generations being socialized in such an atmosphere. Likewise, it is unclear how to evaluate these trends. The value of relativism seems ambiguous. It leads towards tolerance, learning and diversity, on the one hand, and conflict, fragmentation, and confusion, on the other.

A more relativistic generation?

The Millennials are the first generation to grow up in the thick of contemporary multiculturalism—in a "freedom culture" where the singular and self-assured perspectives offered by comprehensive traditions have been refracted into a kaleidoscope of competing worldviews (Beck, 2001c). The Boomers remember Jim Crow and the Civil Rights days. Generation X remembers a world without the hyper-connectivity of a real time Global communications network. Neither of these generations faced the complexity, richness and diversity of intermeshed perspectives in which the Millennials are coming of age. The implications of this are exciting but unsettling (Beck, 2001a, 2001b; Mortimer & Larson, 2002b).
In general, it is clear that growing up has become a longer and more contingent enterprise than it used to be (Arnett, 2000; Kerckhoff, 2002; Mortimer & Larson, 2002a). Research has identified a unique phase of life, becoming known as "emerging adulthood," which lasts from the ages of 18 to 25. This period of development during socialization is a new historical phenomenon. It is essentially a prolonged period of role exploration and identity experimentation, facilitated by a relative independence from social and normative expectations (Arnett, 2000). Biographies become increasingly de-standardized and individualized during this phase. "Emerging adulthood is the only period in life in which nothing is normative demographically... The demographic diversity and unpredictability of emerging adulthood is a reflection of the experimental and exploratory quality of the period" (Arnett, 2000, page 471).

Because emerging adults are "not constrained by role requirements" they are open to engaging with the full diversity of perspectives and lifestyles available in their culture. Youth report being aware of the lack of externally imposed direction and criteria by which to make choices. They are excited (and impelled in college) to explore a variety of worldviews, although this sometimes leads to "the rejection of [simpler] beliefs without the construction of anything more compelling in their place" (Arnett, 2000). Relativism haunts the life-projects of emerging adults.

Many researchers see a similar increase of variety in role and identity experimentation—extending throughout early adolescence—as the capabilities of the Internet and media make a tantalizing diversity of worlds available during the most curious years (Hellenga, 2002). This research explains how the Internet in particular makes possible the (relatively) risk free exploration of worldviews, lifestyles and perspectives that may be geographically and culturally remote. Adolescents are free to choose different modes of self-presentation and expression in the anonymity cyber-space. They can become active in groups formed anywhere on the Globe. In fact, the Internet exemplifies what is unique about the contemporary context of socialization and individuation: it is global, multi-vocal, polycentric and perspectival. It presents extremes in terms of possibilities and diversity, which must be navigated almost entirely by individual choice. There is no overarching authority that holds sway. Avoiding paralyzing confusion in the face of its numerous options requires overcoming naive forms of relativism.

It appears then, that adolescence and the transition into adulthood are increasingly affected by broader social and cultural patterns fostering differentiation, multiculturalism, diversity and individualization (Beck, 2001b; Mortimer & Larson, 2002a). Consequently, a radical form of relativism—which holds that any opinion is as good as any other—is increasingly becoming the default philosophy of American adolescence. While we primarily address the increasing prevalence of relativism in this paper, it is important to acknowledge that a retreat to absolutism or fundamentalism is another way to deal with increasing pluralism and multiculturalism (Beck, 2001a; Gardner, 2004).

Psychological research on epistemological relativism

Levels of relativism

In the introduction to his renowned book on epistemological development, Perry (1970) described changes in the questions on Harvard examinations from the turn of the 20th century to the 1960s. The percentage of exam questions requiring the consideration of two or more broad frames of reference had grown exponentially, changing, on average, from 10% to almost 50%. It is in this way that he introduced the concept of relativism—the ability to view issues from more than one frame of reference—which he argued was a necessary skill for participation in modern society.

While Perry initially saw the emergence of relativism as a historical event tied to pluralism, education, and expanding communication networks, he also came to view it as a developmental phenomenon—associated with increases in the complexity and integration of thought. In the 1950s and 1960s, he investigated the epistemological conceptions of Harvard
undergraduates by examining student self-reports of their learning experiences in college (Perry, 1970). He found that Harvard students’ conceptions of the nature of knowledge developed through 9 developmental positions, from the absolutist (or dualistic) position that knowledge is either “right” or “wrong” to the view that all knowledge is relative and therefore all choices must be made in the face of uncertainty. Subsequent research into the development of epistemological conceptions provided support for this basic sequence (Benack, 1983; Cleave-Hogg, 1996; Clinchy, Lief, & Young, 1977; Kirk, 1986; Kitchener & King, 1990; Knefelkamp & Slepitza, 1976; Kurfiss, 1977; Widick, 1977).

From Perry’s perspective, early forms of relativism are less adequate than later forms because they do not allow for the optimal resolution of complex issues. For example, in the form of relativism identified with position 4, individuals recognize that the world is full of uncertainty and conclude that everyone is entitled to his or her own opinion. For an individual reasoning in this way, there is only one criterion for decision-making—personal opinion. (We call this form of relativism subjective relativism.) On the other hand, by position 6, the individual has embraced broader, more encompassing values or perspectives and developed approaches to evaluating knowledge that permit him or her to make informed decisions in the face of uncertainty.

Building upon Perry’s work, Kitchener and King (1990) conducted a longitudinal investigation of the development of reasoning about ill-structured problems (problems without clear answers). They provide evidence for 7 stages of reflective judgment, which correspond definitionally to Perry’s epistemological positions, as shown in Table 1. Correspondences between stages of reflective judgment and epistemological positions are clearer at lower levels than at the highest levels, and distinctions between the highest levels within each system seem less clear than distinctions between lower levels.

More recently, Schommer (1998) developed the Epistemological Questionnaire, designed to assess epistemological beliefs. Performance on the 4 dimensions assessed by the questionnaire—fixed ability to learn, simple knowledge, quick learning, and certain knowledge—have been shown to change with development. The belief that the ability to learn is fixed changes to the belief that the ability to learn is affected by context; the belief that knowledge is simple changes into the belief that knowledge is complex; the belief that knowledge is certain changes to the belief that knowledge is uncertain; and the belief that learning is quick changes to the belief that learning is gradual (Schommer, Calvert, Gariglietti, & Bajaj, 1997). The direction of change corresponds to the developmental changes in conceptions described by Perry (1970) and Kitchener & King (1994).

Dawson-Tunik and Stein (Dawson & Stein, 2004; Dawson-Tunik & Stein, 2004) have conducted two studies of the development of epistemological conceptions, using a methodological approach called developmental maieutics. In this approach, the developmental level of texts (their hierarchical complexity or level of differentiation and integration) and their conceptual content are independently evaluated, then reintegrated to develop descriptions of conceptions at different developmental levels. This approach avoids some of the circularity of other developmental assessment systems, which tend to conflate developmental level with particular conceptual content. Employing this method, Dawson-Tunik and Stein have shown that epistemological conceptions are not necessarily characterized by forms of relativism, and that different forms of knowledge are associated with different epistemologies. Table 2 represents some of the differences that manifest in reasoning about science versus social issues.
Table 1: Perry positions, stages of reflective judgment, and Lectical™ levels

<table>
<thead>
<tr>
<th>Perry position (Perry, 1970)</th>
<th>Reflective judgment stage (King &amp; Kitchener, 1994)</th>
<th>Lectical™ level</th>
<th>Hierarchical order of abstraction of Lectical™ level</th>
<th>Logical structure of Lectical™ level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position 2</td>
<td>Diversity of opinion is recognized, but attributed to the confusion of poorly qualified authorities.</td>
<td>Level 9 Single abstractions</td>
<td>1st order abstractions</td>
<td>Definitional</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>These coordinate 3rd order representations, which are equivalent to representational systems (the constructions of the previous level). For example, the generalization that everyone has his or her own beliefs, coordinates multiple concrete observations of differences in opinion.</td>
<td>The most complex logical structure of this Lectical™ level often identifies one aspect of a single abstraction, as in “What is true is what you believe,” in which belief is a condition for truth.</td>
</tr>
<tr>
<td>Position 3</td>
<td>Diversity and uncertainty are accepted, but only because the “answer” has not yet been found.</td>
<td>Stage 3 Knowledge is either certain or temporarily uncertain. When knowledge is uncertain, only personal beliefs can be known.</td>
<td>Level 10 Abstract mappings</td>
<td>Linear</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd order abstractions</td>
<td>The most complex logical structure of this level coordinates one aspect of two or more abstractions, as in “Because we are all raised differently, each person has his own personal truths, based on upbringing.” Here, upbringing determines the kinds of truths we hold in adulthood.</td>
</tr>
<tr>
<td>Position 4</td>
<td>Everyone is entitled to her own opinion, but right and wrong still prevail in the realm of authority (or religion).</td>
<td>Stage 4 Knowledge is uncertain and all knowledge claims are opinions.</td>
<td>Level 11 Abstract systems</td>
<td>Multivariate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3rd order abstractions</td>
<td>The most complex logical structure of this level coordinates multiple aspects of two or more abstractions. “Because some methods of determining truth, like the scientific method, produce more consistent results than others, in some cases where there is no absolute truth there are better and worse answers.” Here the notion that there are better and worse methods for determining truth leads to the conclusion that even though knowledge is uncertain, some answers are better than others.</td>
</tr>
<tr>
<td>Position 5</td>
<td>All (most) knowledge is viewed as contextual, though there are gradations of truth and a few right/wrong exceptions.</td>
<td>Stage 5 Knowledge is contextual and affected by perspective. Evidence is interpreted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positions 6-7</td>
<td>The student comes to understand that it is necessary for him to commit to a position within a relativistic world (6). This commitment is made (7).</td>
<td>Stage 6 Knowledge is constructed on the basis of evidence from multiple sources.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Epistemological conceptions associated with Lectical™ levels 9 – 12 (Dawson-Tunik & Stein, 2004)

<table>
<thead>
<tr>
<th>Lectical™ level</th>
<th>Conceptions of truth/reality</th>
<th>Example: Truth is certain/uncertain</th>
<th>Example: Truth is relative</th>
</tr>
</thead>
</table>
| **Level 9**     | At this level, truth/reality is conceptualized in two ways:  
| Single abstractions | 1. Truth is conceptualized in terms of abstract notions of fact (non-facts) and proof (or lack thereof). These are general concepts about differences between types of things that summarize a variety of insights into the given-ness of objects and events. At this level, facts, which are things that can be proven, are often the only things considered to be true.  
| | 2. “Everyone has their own opinion,” appears as a common conception at this level. The main insight is that people have different opinions, which means they will not agree on things, and this means there isn’t really a truth. | [Do you think that there are any things out there that would be absolute truth, true for everybody?] I am sure it is all opinion. [You are sure it is all opinion?] Well, some…yes sure there are some facts out there, but like most…[So what would you say is a fact, can you give me an example?] Well, WW2 ended in nineteen forty-one or something like that (10368). | [Do you think that there are any absolute truths, truths that are true for everybody, all the time?] No. [How come?] I believe that everyone has their different opinions, and what they think is what they want to think, and other people think what they want to think…like that (10364). |
| **Level 10**    | At this level, truth/reality is conceptualized in two ways:  
| Abstract mappings | 1. Truth/reality is conceived of as what has been scientifically proven. This entails an understanding of science as providing the truth, which is basically a set of facts, theories, etc. (However, because scientific theories change, often what is true/real is unclear.)  
| | 2. Truth/reality is conceived of as a matter of belief. This entails an understanding of opinions and beliefs as determining the truth, which is basically what is believed (personally) to be the case. (However, because different people have different beliefs, often what is true/real is unclear.) | [How do you arrive at the truth?] Probably through experience, time, valid sources…[Do you think there are any absolute truths?] Absolute truths? Yes, I guess some things are absolute truths. Your age is an absolute truth. Your weight is an absolute truth. [Why do you think these are absolute truths?] Because they are things that can be proven. There are multiple ways of scientifically proving them (20216). | [Do you think that there are any absolute truths?] No. [Why not?] Truths are what you believe. It’s all in your belief. Is there a true God? Everybody has an opinion. Everybody has an opinion on…the scriptures. There’s no truth there; you can only read them and then formulate your own beliefs (20219). |

Example: Truth is

1. **Level 9**
   - Single abstractions
     - At this level, truth/reality is conceptualized in two ways:
       - 1. Truth is conceptualized in terms of abstract notions of fact (non-facts) and proof (or lack thereof). These are general concepts about differences between types of things that summarize a variety of insights into the given-ness of objects and events. At this level, facts, which are things that can be proven, are often the only things considered to be true.
       - 2. “Everyone has their own opinion,” appears as a common conception at this level. The main insight is that people have different opinions, which means they will not agree on things, and this means there isn’t really a truth.

2. **Level 10**
   - Abstract mappings
     - At this level, truth/reality is conceptualized in two ways:
       - 1. Truth/reality is conceived of as what has been scientifically proven. This entails an understanding of science as providing the truth, which is basically a set of facts, theories, etc. (However, because scientific theories change, often what is true/real is unclear.)
       - 2. Truth/reality is conceived of as a matter of belief. This entails an understanding of opinions and beliefs as determining the truth, which is basically what is believed (personally) to be the case. (However, because different people have different beliefs, often what is true/real is unclear.)
<table>
<thead>
<tr>
<th>Lectical™ level</th>
<th>Conceptions of truth/reality</th>
<th>Example: Truth is certain/uncertain</th>
<th>Example: Truth is relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 11 Abstract systems</td>
<td>At this level, truth/ reality is conceptualized in several ways: 1. Truth/ reality is conceived of as the sum of all that has been proven though the use of appropriate methods. This method is described and justified as being scientific or mathematical. Uncertainty as to what is true or real is the result of inaccuracies or indeterminacies in the method—as lack of data, inconclusive data, or incomplete data. Often, the scientific method is considered a learning process. 2. Truth/ reality is conceived of as being relative to particular perspectives, which are determined by interpretations and perceptions based on beliefs and opinions. These perspectives result in biases that render truth/ reality context-dependent. Uncertainty as to what is true or real is explained in terms of relativism—the idea that different perspectives disclose different realities/ truths, which are equally valid. 3. Truth/ reality is conceived of as being divided into two domains: one that is scientific, another that is social. That is, truth/ reality is conceived of as taking on a different meaning depending upon which domain is in question. This distinction is related to the two conceptualizations described above. When the distinction is elaborated, it is explained that in the scientific domain, truth is what can be proven and verified, while in the social domain, truth is what is collectively interpreted to be the case.</td>
<td>When I think of absolute truth, I think, if you go through a process many times it will always come out the same way. It's absolute. It's like an engineering process. If you put the pencil there it will fall in that direction and that's the way it will fall, and it's an absolute truth that it will happen every time no matter what. And yet if you're talking from the perspective [of] human nature … there's a reasoning process … and your reasoning might be different than mine. Then, I can't say there's always an absolute truth (20209).</td>
<td>Your inner thoughts … your morality, your ethics, things that factor into a person's decision-making—I think all of that is relative, meaning that depending on [your experiences] and how you've educated yourself … two different people could have completely different senses of what truth is because it's relative (20210). …[in] human relationships, you know, there's far less than provable truth. In that regard, I'm guided more by convictions, or judgments, or experiences, or [by] appreciating different perspectives. Two very different people can see the same act and declare that the truth that would have it is very grossly different (20058).</td>
</tr>
<tr>
<td>Level 12 Single principles</td>
<td>At this level, truth/ reality is conceived of as being dependent upon systems of belief and inquiry. Reasoning at this level consists of attempts to integrate a social and perspectival conception of truth with a scientific and evidence-based conception of truth. This includes: (1) expanding a conception of relativism based on perspectives, into a conception of relativism based on systems of belief, and (2) expanding a conception of science based on evidence and proof into a conception of science based on an understanding of validity as secured though social practices and consensus. At this level, truth/ reality is that which is both certain and uncertain, because it is multidimensional, serving different functions in different contexts, and requiring different procedures of justification in different domains.</td>
<td>Science seems to be very much evolving. I think certain kinds of knowledge are static—the principles of physics or the principles of how gravity works; certain things that have been mathematically proven, have gained consensus, and have lasted the test of time—I think of [those] as static knowledge. But, …I think that all knowledge is open to interpretation, and it's open to revalidation, and it's open to changes in the methodologies by which it is acquired. That is, science is changeable by changes in the perspective of a society, which opens up new ways of understanding (1120). A lot of times we [think] we have found an absolute truth. Then 10, 15, 20 years later [we realize] that we don't have total understanding. So, what appears to have been an absolute truth was in fact just a model that fit our current understanding. The reason why it wasn't absolute is that we didn't have all the information we needed. So, I won't say that absolute truths don't exist. [And why not?] Because I think that eventually we will find that there is a fundamental basis for everything. The question is, have we reached that fundamental understanding, or have we just reached some interim understanding based upon our current knowledge? More often it's the latter rather than a set of absolutes (20056).</td>
<td></td>
</tr>
</tbody>
</table>
Dawson-Tunik and Stein are not the only researchers to have noted that evaluations of truth claims are not necessarily characterized by relativism. In the late 1960s and early 1970s Kohlberg (Kohlberg, Levine, & Hewer, 1983), who conducted a well known longitudinal study of moral development in a group of private school boys, began to observe a form of moral relativism very similar to the subjective relativism identified with position 4 in Perry’s scheme. Some of his respondents, who were in their late teens and early twenties at this time, claimed that there was no basis other than personal opinion for making one moral choice over another. Occasionally, a radical form of subjective relativism was observed in the same respondents who had previously taken firm moral positions on a variety of moral issues. Moreover, the same individuals later relied on less relativistic criteria for making moral choices—such as a universal right to life or notions of social responsibility.

Interestingly, in Kohlberg’s sample, most respondents exhibited no relativistic thinking of this kind, indicating that subjective relativism is not a universal phenomenon in the development of moral reasoning, an observation that is consistent with Perry’s view of relativism as a historical phenomenon, but inconsistent with normative developmental models like Perry’s that include subjective relativism as a developmental milestone. It is probable that subjective relativism is more likely to appear in some knowledge domains than others or when reasoning about some kinds of problems such as Kitchener and King’s ill-structured problems. In fact, Kitchener and King chose to employ ill-structured problems to study epistemological reasoning precisely because they present two positions with bodies of evidence on each side, therefore encouraging respondents to entertain multiple perspectives.

In fact, other research indicates that relativism develops along different trajectories in different knowledge domains (Kuhn, Cheney, & Weinstock, 2000; Redish, in press; Schommer & Walker, 1995; Wainryb, Shaw, Langley, Cottam, & Lewis, 2004), and that the pathways through which relativism develops are influenced by cultural practices (Gottleib). There is also evidence that extreme (or radical) forms relativism may emerge at more than one developmental level in some populations (Boyces & Chandler, 1992; Schommer, 1994).

Perry saw relativism as a late development, emerging during the college years. In fact, the ability to construct multiple frames of reference, the defining feature of Perry’s relativism, is an advanced skill, one associated with highly developed thinking (Armon, 1984; Commons et al., 1998; Fischer, 1980; Kohlberg et al., 1983). Perry’s observation of dualistic thinking in college freshmen provided support for the notion that relativism is a late acquisition. However, subsequent researchers have increasingly reported that they rarely find evidence of dualistic thinking in college or even high school students (Chandler, Boyes, & Ball, 1990; King & Kitchener, 1994), and other researchers have argued that forms of relativism are evident in childhood and adolescence (Boyces & Chandler, 1992; Dawson & Stein, 2004; Wainryb, 1993; Wainryb et al., 2004). These findings raise unanswered questions about the origins of relativism, its definition, and the developmental pace and trajectories of relativistic thinking.

**Degrees of relativism**

While some researchers have focused on the development of forms of relativism, another group treats relativism as a unitary trait—one that can be observed on a scale from less to more or low to high. The most commonly used relativism scale is in the Ethics Position Questionnaire, which is designed for college students and adults. It includes 10 statements intended to assess degree of relativism, such as, “Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person” (Forsythe, 1980). High levels of agreement with statements of this kind are associated with what we call **radical** relativism, which, in all of its forms, involves a rejection of objective criteria for decision-making. Interestingly, developmental assessments of relativism and intensity of relativism are not statistically significantly correlated (Ho, Vitell, Barnes, & Desborde, 1997), suggesting that a predisposition toward relativism may be unrelated (or related in complex ways) to developments in the complexity and integration of thought.
Relativism, cognitive skills, and the workplace

Relativism has been shown to have a variable impact on decision making. When relativism is assessed on a developmental continuum from one epistemological position to another, higher levels are associated with more adequate decision making (Schommer et al., 1997; Schommer-Aikins & Hutter, 2002; Spiro, Coulson, Feltovich, & Anderson, 1988) and better critical thinking skills (Mines, King, Hood, & Wood, 1990). When relativism is assessed on an intensity scale, higher levels are associated with less adequate decision making (Furnham & Briggs, 1993; Harvey, 2001; Keller, 1998; Kleiser, Sivadas, Kellaris, & Dahlstrom, 2003; Park, 2002; Sivadas, Kleiser, Kellaris, & Dahlstrom, 2002; Vitell, Rallapalli, & Singhapakdi, 1993).

Because individuals who exhibit more developed epistemologies are more able to cope with ill-structured problems (Chandler et al., 1990; Kitchener, 1983; Kuhn et al., 2000; Silva & Nicholls, 1993) and demonstrate greater persistence in learning, active inquiry, and information integration (Schommer, 1990, 1994), employers have an interest in assuring that the epistemologies of employees are adequate for the learning and problem-solving demands of the workplace. Fortunately, epistemologies continue to develop during adulthood, especially when adults are exposed to ongoing education (King & Kitchener, 1994; Pirttila-Backman & Kajanne, 2001) and organizational environments are structured to support epistemological development (Cicala, 1997; Mann, 2000; Rechner & Baucus, 1997).

Employers also have an interest in understanding the degree of relativism held by individual employees, since radical relativism is associated with poor decision-making, particularly in the ethical realm. Moreover, radical relativism may be on the rise as Millennial youth face an increasingly complex world and may not be equipped with the cognitive tools required to cope with the cacophony of contradictory information to which they are continually exposed.

In the research presented here, we compare two sets of Kohlbergian moral judgment interviews. The first set of interviews were conducted during the 1950s and early 1960s. The second were conducted during the 1990s. First, we examine the question of whether today’s youth are “smarter” than the youth of the 1950s and early 1960s by comparing the developmental level of their moral judgments. We then address the question of whether moral relativism is on the rise by comparing the epistemologies employed by members of these two cohorts in their reasoning about moral problems.

Method

Sample

We searched a large database of over 1000 moral judgment interviews to identify children and adolescents between the ages of 13 and 18 who were interviewed in the 1950s/early 1960s and the 1990s. Because all of the interviews from the 50s were from Kohlberg’s original moral judgment study (Colby & Kohlberg, 1987a, 1987b), which involved only males, we restricted the entire sample to males. We identified 72 adolescent males who were interviewed in the 1950s and 50 adolescent males who were interviewed in the 1990s. Age was distributed as shown in Table 3. All of the interviews used in this project were responses to the Heinz dilemma, part of Form A of the Moral Judgment Interview:

> In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging 10 times what the drug cost him to make. He paid $400 for the radium and was charging $4000 for a small dose of the drug. The sick woman’s husband, Heinz, went to everyone he knew to borrow the money and tried every legal means, but he could only get together about $2000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, “No, I discovered the drug and I’m going to make money from it.” So, having tried every legal means, Heinz gets desperate and considers breaking into the man’s store to steal the drug for his wife (Colby & Kohlberg, 1987b).
Respondents were asked a number of standard probe questions, for example:

Should Heinz steal the drug? Why or why not?
Is it actually right or wrong for him to steal the drug? Why?
Does Heinz have a duty of obligation to steal the drug? Why?
If Heinz doesn’t love his wife, should he steal the drug for her? Why?

Interviews were tape-recorded and transcribed verbatim.

In comparing samples from these two decades, we are aware of a number of threats to the validity of the sampling procedure. In asking whether these samples, aside from being taken from different decades, are from similar populations, we come up against two major problems. First, the samples are different in their locations and demographics. All of the interviews from the 50s were with boys enrolled in a private East Coast school (Colby, Kohlberg, Gibbs, & Lieberman, 1983), whereas the interviews from the 90s were with a sample of mid-Western working and middle class boys (Berkowitz, 1995). Despite these sampling problems, data of these kind are so rare that we decided it was worthwhile to conduct an exploratory investigation.

### Table 3: Age distribution by decade of interview

<table>
<thead>
<tr>
<th>Age</th>
<th>50s</th>
<th>90s</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>14</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>18</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>50</td>
</tr>
</tbody>
</table>

### Developmental analysis

To assess the developmental level of the interviews for this study, we employ a general developmental scoring system called the Lectical™ Assessment System (LAS). The general developmental model upon which the LAS is based has been strongly influenced by Piaget’s stage model, Fischer’s (1980) skill theory, and Commons’ General Stage Model (Commons et al., 1998). In fact, the Lectical™ levels described here are equivalent to Fischer’s 13 skill levels and Commons first 13 stages. They are numbered from 0 to 12 and named as follows: (0) single reflexive actions, (1) reflexive mappings, (2) reflexive systems, (3) single sensorimotor schemes, (4) sensorimotor mappings, (5) sensorimotor systems, (6) single representations, (7) representational mappings, (8) representational systems, (9) single abstractions, (10) abstract mappings, (11) abstract systems, and (12) single principles. In this paper, we are primarily concerned with levels 9 through 11—the levels most commonly identified between the ages of 13 and 18. Table 1 shows correspondences between levels 9 through 12, stages of reflective judgment, and epistemological positions.

### Scoring

The LAS is based on a three-layer model of conceptual structure. In this model—illustrated in Figure 1—the surface layer represents conceptual content, the middle layer represents domain-level structure, and the central layer represents core structure.
The Lectical™ Assessment System (LAS) targets core structures. These are hierarchical order of abstraction and logical structure. See Appendix A or the Lectical™ Assessment Manual (Dawson-Tunik, 2004b) for more information about these constructs.

Most other scoring systems target domain-level structures such as sociomoral perspective or type of relativism. Many of these scoring systems also target conceptual content. It is much easier to score based on domain structure and conceptual content than it is to score based on hierarchical order of abstraction and logical structure. All you need is a scoring manual with examples of the arguments people typically produce at each level. Unfortunately, manuals of this kind are necessarily focused on a single domain, narrowly based on the conceptualizations of a small sample of respondents, and extremely expensive and time consuming to produce.

Lectical™ raters assign a score based on hierarchical order of abstraction and logical structure, but, to do this, they must be able to observe how these manifest in a given performance. This means that scoring is an iterative process—one in which the rater moves back and forth from one layer of structure to the next, finally converging on an interpretation of the core structure of a performance.

For example, a rater was asked to score the following interview segment:

[COULD YOU HAVE A GOOD LIFE WITHOUT HAVING HAD A GOOD EDUCATION?] Yeah, probably so, I would say. I wouldn’t…it would be richer with education, but it wouldn’t... [WHY DO YOU THINK IT WOULD BE RICHER WITH EDUCATION?] Well, you just, your mind would be open to a lot more things. (Good Education 0212)

The rater’s response illustrates how each layer of structure plays a role in the scoring process:

Well, this isn’t a very sophisticated notion of the role of education in the good life. Especially because, at first, I thought that he was saying that you’d be richer, money-wise (laughter), with an education. That would make ‘richer’ a representational notion, but I see that it’s actually at least abstract, because it’s related to this idea of open-mindedness. It seems there are two variables [richer life, open mind] that are in a logical relation to one another...as in, "If you get a good education, your mind will be more open, and therefore you will have a richer life." This would make it at least abstract mappings, but could it be higher than that? Well, richer life could be higher than single abstractions,
and so could open mind, so I’m looking for evidence that they are…but the perspective here is of the individual person and his life, without bringing in anyone else’s perspective, or a social perspective, so you can’t say, really. Abstract mappings; I’ll stick with that.

In this example, the rater appeals to all three levels of structure. The content level is referenced in her initial attempt to understand the argument, and again when she double checks her understanding at the end. The domain structure level is briefly included when she examines the social perspective of the respondent to see if there are grounds for considering the possibility that the statement is higher than abstract mappings. The core structure is reflected in her analysis of the hierarchical order of abstraction and logical structure of the argument (abstract variables, logical relation).

It is easy to see from this example how central meaning is to the scoring process. Without a correct interpretation of the meaning of a statement, the rater cannot even begin the process of scoring. For example, knowing which sense of richer is intended by the respondent is essential to a correct interpretation of the hierarchical order of abstraction of the concept.

Before scoring the responses to the Heinz dilemma, the interviews were divided into scoreable segments or protocols by probe question. There were from 4 to 14 protocols per interview, depending upon the probes employed by different interviewers. Each of these protocols was scored with the Lectical™ Assessment System and a mean score was calculated for each respondent. Inter-rater reliability is reported in Dawson and Gabrielian (2003).

Content analysis

All of the interviews were coded for their conceptual content by a single rater. Conceptual categories and the distribution of these categories by developmental level are shown in Table 4. There were statistically significant trends in the distribution of concept categories by developmental level for unsure, speak for self, and culture/society. The trend for belief/opinion approached statistical significance (p<.09). Unfortunately, due to the small cell values, these results must be interpreted with caution.

Table 4: Distribution of content categories by Lectical™ level

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>N(%) at level 9</th>
<th>N(%) at level 10</th>
<th>N(%) at level 11</th>
<th>Pearson chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>The respondent expresses uncertainty about the proposed solution.</td>
<td>4 (36.4%)</td>
<td>12 (12.4%)</td>
<td>0</td>
<td>7.38*</td>
</tr>
<tr>
<td>Relativism: belief/ opinion</td>
<td>Noms are relative to individual beliefs/opinions.</td>
<td>1 (9.1%)</td>
<td>16 (16.5%)</td>
<td>5 (35.7%)</td>
<td>3.71</td>
</tr>
<tr>
<td>Speak for self</td>
<td>The respondent offers a solution, but claims he or she is capable only of speaking for his or her self, and/or withdraws any universal or prescriptive status from the solution.</td>
<td>1 (9.1%)</td>
<td>3 (3.1%)</td>
<td>4 (28.6%)</td>
<td>13.08*</td>
</tr>
<tr>
<td>Relativism: perspectives</td>
<td>Noms are relative to the different perspectives/ views of those involved.</td>
<td>0 (0.0%)</td>
<td>8 (8.2%)</td>
<td>2 (14.3%)</td>
<td>1.67</td>
</tr>
<tr>
<td>Relativism: culture/ society</td>
<td>Noms are relative to cultural or societal decisions/ processes/ constructions.</td>
<td>0 (0.0%)</td>
<td>2 (2.1%)</td>
<td>2 (14.3%)</td>
<td>6.17*</td>
</tr>
</tbody>
</table>

*Statistically significant at p<.05 level—to be interpreted with caution due to low cell values.
Results

Lectical™ levels

The mean Lectical™ levels identified in this sample are typical of the same age groups in previous studies of developmental attainment (Armon, 1984; Dawson-Tunik, 2004a; Fischer & Bidell, 1998; Kitchener & King, 1990). Level 10 (abstract mappings) is the modal developmental level for most of this age-range.

There are no statistically significant differences between the cognitive developmental levels of children and adolescents from the two samples of moral judgment interviews. Table 5 shows the distribution of mean scores within the different age groups by decade.

Table 5: Age distribution by decade of interview with mean scores for age groups

<table>
<thead>
<tr>
<th>Age</th>
<th>50s</th>
<th>90s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>mean</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td>9.5</td>
</tr>
<tr>
<td>14</td>
<td>17</td>
<td>9.8</td>
</tr>
<tr>
<td>16</td>
<td>14</td>
<td>9.9</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
<td>10.2</td>
</tr>
<tr>
<td>18</td>
<td>12</td>
<td>10.3</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>10.3</td>
</tr>
</tbody>
</table>

These results suggest that the core reasoning structures of Millennials are similar to those of mid-century adolescents. However, this does not mean that Millennials are identical to adolescents of the 1950s. In the following section, we show that they are importantly different. These differences are observed in the content of their reasoning, not in its deep structure. In other words, the Millennials are thinking different things but they are not displaying unprecedented intellectual capabilities.

Relativism

Table 6 shows the distribution of conceptual categories by decade, and Table 7 offers a more detailed breakdown of content categories by decade and developmental level. Uncertainty, relativistic references to belief or opinion, and the notion that one can speak only for oneself were statistically significantly more likely to appear in the interviews conducted in the 1990s. In fact, respondents from the 1990s were more than 4 times more likely to express uncertainty, almost 4 times more likely to make relativistic references to belief or opinion, and 10 times more likely to express the notion that one can speak only for oneself. If these findings are robust—and additional research is required before we can feel confident in making this assertion—there has been a major shift in the moral thinking of American youth.
Table 6: Distribution of content categories by decade of study

<table>
<thead>
<tr>
<th>Category</th>
<th>1050s</th>
<th>1090s</th>
<th>Pearson chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>4 (5.6%)</td>
<td>12 (24.0%)</td>
<td>8.81*</td>
</tr>
<tr>
<td>Relativism: belief/opinion</td>
<td>6 (8.3%)</td>
<td>16 (32.0%)</td>
<td>11.18*</td>
</tr>
<tr>
<td>Speak for self</td>
<td>1 (1.4%)</td>
<td>7 (14.0%)</td>
<td>7.66*</td>
</tr>
<tr>
<td>Relativism: perspectives</td>
<td>6 (8.3%)</td>
<td>4 (8.0%)</td>
<td>.00</td>
</tr>
<tr>
<td>Relativism: culture/society</td>
<td>2 (2.8%)</td>
<td>2 (4.0%)</td>
<td>.14</td>
</tr>
</tbody>
</table>

*Statistically significant at p<.05 level—to be interpreted with caution due where cell values are <5.

Table 7: Distribution of content categories by developmental level and decade of study

<table>
<thead>
<tr>
<th>Category</th>
<th>1050s N(%) at level 9</th>
<th>1090s N(%) at level 9</th>
<th>1050s N(%) at level 10</th>
<th>1090s N(%) at level 10</th>
<th>1050s N(%) at level 11</th>
<th>1090s N(%) at level 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>1 (20.0%)</td>
<td>3 (50.0%)</td>
<td>3 (5.2%)</td>
<td>9 (23.1%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Relativism: belief/opinion</td>
<td>0 (16.7%)</td>
<td>1 (6.9%)</td>
<td>4 (6.9%)</td>
<td>12 (30.8%)</td>
<td>2 (22.2%)</td>
<td>3 (60.0%)</td>
</tr>
<tr>
<td>Speak for self</td>
<td>0 (16.7%)</td>
<td>0</td>
<td>0 (7.7%)</td>
<td>3 (11.1%)</td>
<td>1 (60.0%)</td>
<td>3 (60.0%)</td>
</tr>
<tr>
<td>Relativism: perspectives</td>
<td>0</td>
<td>0 (6.9%)</td>
<td>4 (10.3%)</td>
<td>4 (22.2%)</td>
<td>2 (22.2%)</td>
<td>0</td>
</tr>
<tr>
<td>Relativism: culture/society</td>
<td>0</td>
<td>0 (5.1%)</td>
<td>2 (5.1%)</td>
<td>2 (22.2%)</td>
<td>2 (22.2%)</td>
<td>0</td>
</tr>
<tr>
<td>n</td>
<td>5</td>
<td>6 (58)</td>
<td>39 (39)</td>
<td>9 (5)</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

What does this shift mean in terms of the moral decisions made by the youth in these samples? A more detailed look at their conceptions reveals a number of important differences.

A closer look at subjective relativism

What we have been referring to as subjective relativism consists of a cluster of notions, all of which increased in respondents from the 1990s: uncertainty, relativistic references to belief or opinion, and the notion that one can speak only for oneself. All three notions are associated with reasoning scored at Lecitical™ level 10, though there are some precursors at level 9 and some of these notions persist at level 11, though, as we demonstrate below, in a somewhat different form. By looking more carefully at the way these notions are employed in moral arguments at level 10 we can discern how subjective relativism affects the metaethical orientations of those who reason in this manner. We will see that uncertainty and the notion that one can speak only for one’s self are symptoms of the general adherence to the relativistic position that personal beliefs, opinions and interests constitute moral norms. Furthermore, we will see that as reasoning becomes more complex subjective relativism transforms into to contextual relativism, which construes the same basic metaethical orientations in more complex ways.

It is important to note that subjective relativism should be understood as an ideal type. That is, it is not likely that any respondent would exhibit subjective relativism on all issues in all knowledge domains. Rather, the relativism we lay out here in abstract structural terms is
more or less approximated by individual respondents, and varies according to context. So, while what is general across respondents is being emphasized here, one should not view this abstract homogeneity as an actuality. Each respondent in our sample manifested a unique version of subjective relativism.

The clearest way to get a sense of subjective relativism is to look at some examples. As a mode of moral reasoning it is marked by an awareness of differences between people and what they believe to be morally good or right. Several respondents referred to a personal sense of morals:

[WHY SHOULD YOU DO EVERYTHING YOU CAN TO SAVE ANOTHER LIFE?] Because I cannot just watch somebody die. [WHY NOT?] Because you just cannot. You just, you know … Because, I guess it's just a matter of your own sense of morals. (0347, 1990)

Or

[WHAT SHOULD HIENZ DO WITH RESPECT TO THE LAW?] He should decide through his own sense of morals and what he believes is right. So he can make a decision, a conscientious decision to obey or break the law, depending on what he believes, and what's at stake. (0576, 1990)

Again

[IS IT IMPORTANT FOR PEOPLE TO DO EVERYTHING THEY CAN TO SAVE ANOTHER PERSON'S LIFE?] Yes. [WHY? WHY WOULD YOU WANT TO DO THAT?] Well, I guess it's really your choice. It's just really whether or not you think you should. It depends on what you think is right. I think you would have to give a lot of thought to it. This isn't something that you think about. I personally just think people should. (0507, 1990)

Notice that each respondent in these examples expresses the belief that moral questions are matters of personal choice and preference. This is the crux of subjective relativism. It appears in different ways and in more or less radical forms. Sometimes it appears as the idea that each person has a different set of moral standards: "Morality is something within yourself, that you set as your own law, on what you feel is right" (1168, 1950). Other times it appears with a more radical flavor, in the idea that the good or right is entirely constituted by personal perceptions and beliefs: “He was doing what he though was right, and whatever he thinks is right, is right, for him” (0347, 1990). But despite varying degrees of solipsism the common meta-ethical thread is an emphasis on individuality, uniqueness, and variability—morality as a choice or disposition—instead of an emphasis on shared, general and impersonal obligations.

This leads, as evidenced in the third example above, to an inability to feel confident in making generalizations about what others will or should do in moral matters—the notion that one can speak only for oneself. It is fairly clear that this should follow from a belief that moral norms are constituted by personal beliefs and opinions. It is most evident in short glosses that some respondents attach to their statements.

[WHY IS IT IMPORTANT TO SAVE ANOTHER PERSON'S LIFE?] Again, it depends whether he thinks it's justifiable. I personally think it's justifiable if you can save a person's life. I would save the person's life. Why? Because I think it's the right thing to do. I cannot be more sure than that, I mean I can't speak for him. [WHAT WOULD BE SO WRONG ABOUT NOT SAVING A PERSON'S LIFE?] Knowing that you had the opportunity to save someone's life and you didn't, that's a wrongdoing, in my eyes. (0576, 1990)

Other examples make obvious the connection between a relativistic understanding of how morality is constituted by personal opinions and the belief that one can only speak for oneself.
[WHY SHOULD HEINZ STEAL THE DRUG] Because, I think that's the right thing to do. [WHY DO YOU THINK IT'S RIGHT?] I don't know. For myself, it would be right. Because I would want it done for myself. But, maybe for him it wouldn't. I don't know. I guess I can really only say what I would do. (0412, 1990)

Furthermore, uncertainty consistently accompanies these expressions of subjective relativism. This may not be as substantive a conception as relativistic references to belief or opinion or the notion that one can speak only for oneself. Yet, uncertainty is the outcome of relativistic reasoning that weighs most heavily on the emotional and action-orienting ramifications of such thinking. Uncertainty is disorienting and paralyzing.

If you don’t obey the law, either you or somebody else could … could end up injured or even dead. [OKAY, AND WHY IS IT IMPORTANT THAT PEOPLE NOT END UP INJURED OR DEAD?] Well … I don’t know. [OKAY. IN OBEYING THE LAW, HOW DOES THIS APPLY TO WHAT HEINZ SHOULD DO?] Well … {PAUSE} … I am stuck here. (341, 1990)

[OKAY, ALL RIGHT, WELL IS IT IMPORTANT FOR PEOPLE TO DO EVERYTHING THEY CAN TO SAVE ANOTHER PERSON’S LIFE?] Is it important? Yes. [WHY? WHY, WHY SHOULD WE SAVE OTHER PEOPLE’S LIVES?] I don't know. Because. Because, because I said so. I don't know. (0222, 1990)

These examples in particular demonstrate that important metaethical issues are mired in uncertainty. Here uncertainty is not being felt while trying to figure out how to apply a norm in a particular complex situation. (Although, that is also common.) Instead, we see uncertainty in attempts to articulate and explain some of the most basic and fundamental moral intuitions—inarticulacy concerning the very normativity of the moral ought. This kind of deep moral uncertainty and inarticulacy is a bedfellow of subjective relativism and seems to follow logically from its premises.

Another conceptualization that appeared in greater numbers in the reasoning of the Millennials was one in which culture, society, and upbringing were implicated in the nature of morality. This, in fact, is not another facet of subjective relativism, but rather it marks the developmental transition from subjective relativism to contextual relativism (Lectical™ level 10/11). That is, as the reasoning of respondents becomes more abstract, complex, differentiated and integrated, relativism begins to be articulated in terms of broader contextual determinates of moral choice and perspective. The transition from subjective relativism to contextual relativism involves observing that the opinions and beliefs that constitute an individual’s personal moral sense are dependent upon culture, society, or upbringing.

It's not his duty to steal the drug. It depends on whether he thinks he should or not. And that depends on his basic upbringing and the way his mind was shaped. (1146, 1950)

The second sentence in the example expresses subjective relativism, the third expresses contextual relativism. Again, from the same interview:

But morally speaking, I can say I think I would have done it. He would have to make up his own mind and he probably loved his wife very much and wouldn’t want to lose her. Of course, it depends on his religion and culture. [HOW DO YOU MEAN?] Well, I talked to some Jehovah's witnesses and they are strict followers of the Bible. They abstain from blood; they don't believe in transfusions and things like that. In that case, if somebody was in need of a transfusion, if it were a loved one, they wouldn’t allow it. And the one who was suffering wouldn’t want to receive a transfusion. They believe if you are delivered in God's word, they must follow all his rules to the letter. I believe in freedom. If that's what they believe, who are we to say what is what? [ARE YOU SAYING JEHOVAH WITNESSES ARE RIGHT?] No, I am not saying they are right or they are wrong. (1146, 1950)

Here subjective relativism is subsumed within contextual relativism. Contextual relativism understands the construction of moral norms as being relative to cultures and societies (in
It's all good

this case religions) instead of to individual's beliefs and opinions. Here, belief systems determine the good and the right—conflicting interpretations of morality must be hashed out cross-culturally. Differences in opinion are traced back to the broader incommensurable worldviews from which they draw their substance.

Discussion

We began this paper by introducing three research questions. (1) Are there cognitive developmental differences between the moral judgment performances of adolescents growing up in the 1950s and 1990s? (2) How is the phenomenon of moral relativism manifested in these interviews and how is it affected by cognitive development? (3) Does moral relativism increase from the 1950s to the 1990s?

The results of our Lectical™ analysis of the interviews forces us to—tentatively, at least—answer no to the first of these questions. The Millennials were no more developmentally advanced than the youth of the 1950s and 1960s.

To the second question, we have a more complex answer. We identified two forms of relativism (1) subjective relativism and (2) contextual relativism, the first of which was identified primarily at level 10, and the second of which was identified primarily at transition 10/11 and level 11. Subjective relativism expresses the belief that everyone has an opinion and every opinion is as good as any other, and is nicely summed up in the expression, “It’s all good”—the indifferent catch-phrase of Millennial youth. Contextual relativism is a more mature form of relativism in that it encompasses a broader perspective—that of the group or culture. Contextual relativists see values as relative to social systems, religions, organizations, etc. What is good is what we, as a group or culture, have decided is good. There are differences across groups and cultures, but within our own cultural milieu, we know where we stand and are compelled to act in accord with particular values.

Finally, to the third question, we must answer, yes; relativism does characterize the epistemologies of the Millennials in our sample, and because this increasing relativism is unaccompanied by developmental advance, it most commonly takes the form of subjective relativism.

Promoting developmental change

Subjective relativism does not and ought not have a miracle cure. It should be understood that Millennials are not subjective relativists by chance; they have acquired this perspective as a means for coping with the diversity, multiculturalism and complexity of our culture. Therefore, subjective relativism can't simply be replaced with a less relativistic stance. Nor would such a simple exchange be desired, for subjective relativism is, in many ways, a hard won achievement both ontogenetically and phylogenetically. Historically, there have been few societies able to honor the dream of a "democracy without enemies" in which a plurality of cultures and ways of life could be valued and heard. Such a goal is worth the confusion amassed during the struggle to achieve it. The Millennials may be the first generation truly groping for an adequate way to deal with the cognitive demands of this project. No previous generation has been so openly confronted with the multitude of voices liberated by the idea that "all humans are created equal"—that there should be "liberty and justice for all." Seen in this light the confusion of subjective relativism is not so much a mishap as a growing pain. It should not be replaced, but overcome. This means that successfully dealing with subjective relativism does not entail retreating from confrontations with diversity. Rather, it entails developing towards more adequate forms of relativism—better ways of dealing with the complexities of pluralism.

Here we suggest one strategy that can be employed to help overcome subjective relativism and promote cognitive developmental transitions to more adequate modes of reasoning. We maintain that the tensions and inadequacies of subjective relativism can only be relieved with the development of more complex thinking, specifically a move into contextual relativism. While subjective relativism emphasizes how individuals self-prescribe norms in light of their personal opinions and beliefs, contextual relativism understands personal opinions and
beliefs as being constructed from shared cultural norms and prescriptions. This difference allows contextual relativists to accept as relatively valid the norms shared by a group or culture and thus embrace inter-personal obligations. Although contextual relativists lack the means to resolve cross-cultural moral disagreements (a task for principled relativism at level 12) they can understand the inner-cultural dynamics that constitute the reciprocal patterns of obligation and the overlapping consensuses that validate the norms shared within moral communities. This is clearly an advance over the idea that norms are self-prescribed, which leads subjective relativists into conflicts with any interpersonal system of norms, (e.g. "it's all good" = "nobody can tell me what to do"). So, it is by promoting cognitive development that subjective relativism can be transformed into a more constructive way of dealing with pluralism—a contextual relativism capable of grasping in more complex terms how moral norms are constructed within systems of belief.

During the course of other research endeavors, the Developmental Testing Service has constructed innovative curricular frameworks especially geared to catalyze cognitive development (Dawson-Tunik & Stein, in preparation; Dawson & Stein, 2004, April). These developmentally informed modules for use in learning environments have so far focused primarily on decision making and the development of physics conceptions. A brief look at the principles and strategies employed in constructing a curricular framework for one aspect of decision making—the identification of values—will serve to give a general sense of the kinds of pedagogical interventions and organizational cultures that promote development.

Promoting cognitive development requires a more sensitive and responsive learning environment than is usually provided in classrooms. As explained in the discussion of our methodology, cognitive development is one process played out across various domains and manifesting in a variety of performances, which means individuals' developmental levels vary relative to context, knowledge domain, and task. Ideally, pedagogical interventions should be targeted to meet the developmentally appropriate needs of individuals or groups. The activity or lesson should attempt to instill conceptions that are just beyond what students know, understand, or are presently capable of doing. The environment should make available and promote the next logical developmental step along the overall trajectory of the curriculum.

Of course, doing this requires several things. First, it requires a sophisticated developmental assessment technology capable of yielding information about individuals and groups that can be used to facilitate the suggested customization. Second, it requires a comprehensive and developmentally informed "map" of the curricular agenda, laying out the various skills to be learned, demonstrating how they manifest at and develop across various developmental levels, and accounting for the different developmental pathways that are possible within this framework. Third and finally, it requires a database of developmentally targeted pedagogical techniques and interventions geared to instill particular skills at particular levels, to promote the development of new skills by integrating old ones, or develop existing skills to a higher level of complexity.

The Developmental Testing Service has already generated just such a curriculum for decision-making skills. We employed developmental maieutics to analyze a compressive set of decision-making texts, providing an outline of the structure of a decision-making curriculum informed by cognitive developmental theory. This curricular framework consists of a taxonomy of skills, categorized according to theme and domain. The development of each skill occurs by guiding the learner through a sequence of developmentally appropriate activities and practices.

Various aspects of this curriculum are relevant for targeting interventions that could promote development beyond subjective relativism. For example, an entire group of skills targeted by this curriculum involves identifying values, a broad concept that can be broken down into ethics, culture and context. These are further subdivided into a third layer of more specific skills. Figure 2 displays this taxonomy of skills.
In this example, we focus on the ethical values skills that promote an awareness of the public good. At level 10, where we find the greatest incidence of subjective relativism, instructional emphasis would be placed on defining the public good, examining how it is implicated in decision-making processes, and introducing strategies for taking it into account when making decisions. Activities could include looking into case studies of important decisions and attempting to identify those that should involve a consideration of the public good. There could also be discussions and activities designed to facilitate an awareness and understanding of the notion of public good in somewhat ambiguous, local situations, such as those in which the public is narrowly defined as the members of a research team. In these situations, students would be encouraged to coordinate a variety of individual perspectives—directly engaging subjectivity—as they work to construct a general conception of the public good with respect to individual differences in perspectives.

The next level of engagement with this skill (10/11) involves identifying decision situations in which the public good is a hidden or ambiguous factor, exploring ways to locate and clarify cases in which the public good is ambiguous, and discussing the unique emotional demands of decisions that have serious consequences for the public good. Activities at this level would focus on broader considerations of the public good. For example, they would include coordinating considerations of the good across groups of employees within the larger organization or multiple groups in the broader public sphere. Activities would include considering a variety of existing conceptions of the public good and encouraging students to tease apart the cognitive and emotional implications of concerns associated with constructing a conception of the public good. This level throws the subjective relativist up against the emotional and cognitive challenges of developing a general conception of the public good in the face of varying group perspectives.
The next level (level 11), involves exploring the institutional structures and organizational cultures that can inhibit or facilitate one's ability to account for the public good. Learning activities would involve discussions of students' real-life decision situations in which institutional structures have affected considerations of the public good. Here subjective relativism must be subsumed by a contextual relativism that views the public good in terms of connections between institutional structures, the organizational culture, and the concerns, abilities, and dispositions of individuals.

The suggested sequence of instruction begins by bringing the concept of the public good into awareness by asking students to coordinate the perspectives of individuals in relatively small social groups. This step is followed by a consideration of students' personal cognitive and emotional reactions to the process along with an attempt to broaden their skill by engaging them in efforts to construct conceptions of the public good that coordinate the perspectives of groups within larger organizations or institutions. In the final step, students explore the institutional and cultural significance of considering the public good.

The subjective relativist may initially engage this curricular approach merely by adding a concern for the public good to his list of self-prescribed obligations (or a list of the possible self-prescribed obligations adhered to by others). Ultimately, however, engagement with the concept in increasingly complex contexts would lead to the insight that an individual's understanding of the public good can be constructed relative to the shared cultural and institutional resources of an organization or society. This would mark a transition to principled relativism, which would enable an individual to join in the co-creation of an organizational ethic and provide a solid rationale for adhering to the interpersonal obligations defined by this ethic.

Caveats and directions for future research

As noted in the methods section, the sample employed here is a convenience sample. Respondents are not matched for any demographic variables, beyond being representative of the American working and middle class (a wide-ranging designation). Moreover, the sample included no females. We hesitate, therefore, to form any firm conclusions. We are particularly hesitant to make too much of the finding that there was no change in developmental level of performance for same-age respondents from the two time periods. While there are reasons to hypothesize that development would not necessarily speed up as a consequence of the complexification of children’s experience over the last 50 years, and these results support that hypothesis, further research, with better controls for demographics such as SES, location, and type of educational institution must be conducted before any generalization is warranted.

The same is true for the observation of a 4–10 times increase in subjective relativism from the 1950s to the 1990s. While this finding supports the hypothesis that the increasing emphasis on pluralism during the last 60 years has lead to an increase in moral relativism, we cannot rule out the possibility that this finding is related to differences in the demographics of the two samples rather than (or in addition to) historical trends.

We did not find any expressions of fundamentalism in our sample. However, this does not eliminate the possibility that fundamentalism is one way of responding to an increasingly complex world. Future research sampling a wider range of demographic groups may provide evidence of change in the rate of fundamentalism.

We are in the process of applying for a grant to conduct a more in-depth investigation of the phenomenon of subjective relativism and develop educational interventions designed to increase individuals’ ability to construct defensible moral positions in an increasingly diverse world.
Appendix A

Scoring for Lectical™ level

The scoring procedures employed with the Lectical™ Assessment System are partially derived from Commons’s (Commons, Danaher, Miller, & Dawson, 2000) and Rose & Fischer’s (1989) assessment systems. This scoring system, like its predecessors, is designed to make it possible to assess the hierarchical complexity of a performance—its level of differentiation and integration—without reference to its particular conceptual content. Rather than making the claim that a person occupies a level because he or she has, for example, elaborated a particular conception of justice, the Lectical™ Assessment System permits us to identify performances at a particular complexity level and then to ask (empirically) what the range of justice conceptions are at that complexity level. Thus, it avoids much of the circularity of many stage scoring systems, including the Perry scheme and the Reflective Judgment Scoring System, which define stages in terms of particular conceptual content and domain-specific structures like social perspective-taking, or type of relativism (Brainerd, 1993).

It is possible to score the Lectical™ level of text performances because hierarchical complexity is reflected in two aspects of performance that can be abstracted from particular conceptual content. These are (a) hierarchical order of abstraction and (b) the logical organization of arguments. Hierarchical order of abstraction is observable in texts because new concepts are formed at each complexity level as the operations of the previous complexity level are “summarized” into single constructs. Halford (Halford, 1999) suggested that this summarizing or “chunking” makes advanced forms of thought possible by reducing the number of elements that must be simultaneously coordinated, freeing up processing space and making it possible to produce an argument or conceptualization at a higher complexity level. Interestingly, at the single reflexive actions, single sensorimotor schemes, single representations, single abstractions, and single principles complexity levels, the new concepts not only coordinate or modify constructions from the previous complexity level, they are qualitatively distinct conceptual forms—reflexes, schemes, representations, abstractions, and principles, respectively (Fischer, 1980; Fischer & Bidell, 1998). The appearance of each of these conceptual forms ushers in three repeating logical forms—single elements, mappings or relations, and systems. Because these three logical forms are repeated several times throughout the course of development, it is only by pairing a logical form with a hierarchical order of abstraction that a rater can make an accurate assessment of the complexity level of a performance. For example, the statement, “In a good education, you get to have recess so you can play with your friends,” is structurally identical to the statement, “In a good education, you get to socialize so you can learn how to relate to other people.” Both are mappings. The first sentence, because its conceptual elements are representations, is a representational mapping. The second sentence, because its conceptual elements are abstractions, is an abstract mapping. Without the distinction between representations and abstractions it would be difficult to accurately score these texts. Other researchers have observed and described similar conceptual forms and repeating logical structures (Case, Okamoto, Henderson, & McKeough, 1993; Fischer & Bidell, 1998; Overton, Ward, Noveck, & Black, 1987; Piaget & Garcia, 1989).

Note that logical and conceptual structures are definitionally identical. We make a distinction between the two types of structure for heuristic and pragmatic reasons. When scoring texts, hierarchical order of abstraction refers primarily to the structure of the elements of arguments, which often must be inferred from their meaning in context, whereas logical structure refers to the explicit way in which these elements are coordinated in a given text. Examples of how we work with these two constructs are offered in the following section.

Complexity levels defined

Only the four complexity levels (single abstractions to single principles) commonly identified in adolescent and adult performances are included in the following definitions. All of the examples provided in these definitions are from Dawson and Gabrielian’s (2003) analysis of
the conceptions of authority and contract associated with complexity levels in a sample of 747 moral judgment interviews scored with the Lectical™ Assessment System.

At the single abstractions level, the new concepts are referred to as first order abstractions. These coordinate third order representations, which are equivalent to representational systems (the constructions of the previous complexity level). For example, the concept of trustworthiness, articulated for the first time at the single abstractions level, defines those qualities that make a person trustworthy rather than describing situations in which trust is felt or not felt. It is composed of qualities that produce trust, such as telling the truth, keeping secrets, and keeping promises. “It’s always nice… to be trustworthy. Because then, if [someone has] a secret, they can come and talk to you.” Concepts like kindness, keeping your word, respect, and guilt are also rare before the single abstractions level. “If you don’t do something you promise, you’ll feel really guilty.” The most complex logical structure of this complexity level often identifies one aspect of a single abstraction, as in “Making a promise is giving your word” in which giving one’s word is an “aspect” of a promise.

Figure 1 portrays a visual representation, in the form of a concept map, of a 54-year-old respondent’s argument about why promises should be kept. The respondent argues that a person should keep a promise because keeping promises is “the right thing to do.” When probed, the respondent comes up with three separate (uncoordinated) reasons for keeping promises, because people expect promises to be kept, because “people will trust you” if you keep a promise, and because “you might feel guilty if you break a promise.” All three of these reasons for keeping promises are considered to be first order abstractions, because they extract general abstract notions by coordinating concepts that appear for the first time at the representational systems level (Dawson & Gabrielian, 2003). Keeping promises will create trust, in general; people, in general, have expectations when promises are made; and breaking promises can produce negative emotional consequences, in general, for the promise-breaker. It is important to keep in mind that the particular concepts expressed by a respondent are important only to the extent that they embody a particular hierarchical order of abstraction. A rater must ‘look through’ the meaning of a particular conceptual element to abstract its hierarchical order of abstraction.

Figure 1

A person should keep a promise because 0362 (age 54)

it is the right thing to do

people will trust you

people expect it

you might feel guilty if you break it
At the abstract mappings level, the new concepts are referred to as second order abstractions. These coordinate or modify abstractions. For example, the second order abstraction *basis* can be employed to coordinate the elements essential to a good relationship. “To me, [trust and respect are] the basis of a relationship, and without them you really don’t have one.” Because they are usually employed to coordinate abstractions, concepts like *coming to an agreement, making a commitment, building trust,* and *compromise* also are rare before the abstract mappings level. “I think [Joe and his father] could come to an agreement or compromise that they are both comfortable with.” The most complex logical structure of this complexity level coordinates one aspect of two or more abstractions, as in “Joe has a right to go to camp because his father said he could go if he saved up the money, and Joe lived up to his commitment.” Here, Joe’s fulfillment of his father’s conditions determines whether Joe has a right or does not have a right to go to camp.

Figure 3 provides a map of the performance of a 58-year-old male, who provides three reasons for keeping promises. There are two mappings in this performance. The first is the assertion that “broken promises can harm relationships because they cause pain and reduce trust.” This mapping coordinates two abstract consequences of promise-breaking into the general notion that broken promises do harm to relationships. The second is the assertion that keeping promises makes it possible for people to “depend on one another.” This mapping coordinates the perspectives of at least two individuals to form the notion that keeping promises produces mutual benefits. Note how this idea builds on the single abstractions notion that people will trust you if you keep promises.

**Figure 2**

At the abstract systems level, the new concepts are referred to as third order abstractions. These coordinate elements of abstract systems. For example, the notion of *personal integrity*
is rare before the abstract systems level, because it usually coordinates multiple abstract conceptions such as fairness, trustworthiness, honesty, preservation of the golden rule, etc., which are understood as interrelated aspects of the self. “[You should keep your word] for your own integrity. For your own self-worth, really—just to always be the kind of person that you would want to be dealing with.” Because they usually coordinate elements of abstract systems, concepts like verbal contract, moral commitment, functional, development, social structure, and foundation are also uncommon before the abstract systems level. “A promise is the verbal contract, the moral commitment that the father made to his son. It is the only way for the child to … develop his moral thinking — from watching his parent's moral attitude.” The most complex logical structure of this complexity level coordinates multiple aspects of two or more abstractions. “Following through with his commitment and actually experiencing camp combine to promote Joe’s growth and development, not just physically but psychologically, emotionally, and spiritually.” Here multiple facets of Joe’s personal development are promoted when he both keeps his commitment and accomplishes his goal.

Figure 4 provides a map of the performance of a 51-year-old female. The respondent describes a system in which promise-keeping is both obligatory and sometimes impossible, “due to unforeseen circumstances.” The reason for keeping promises is that one must stand by one’s commitments. Doing so not only preserves one’s personal integrity, but also builds a sense of trust, “which keeps society functioning.” The notion of standing by one’s commitments, the idea that doing so preserves one’s integrity, the argument that the sense of trust built through promise-keeping keeps society functioning, and the notion of unforeseen circumstances are all examples of second order abstractions. Note how the notion that the trust built from promise keeping keeps society functioning (even in the presence of the effects of unforeseen circumstances) builds on the abstract mappings idea that keeping promises makes it possible for people to depend on one another.
It is important to keep a promise 1001 (age 51)

because

if one makes a commitment, one stands by it

due to unforeseen circumstances

because keeping promises builds a sense of trust

which keeps society functioning

to preserve one's integrity

although it is not always possible

At the single principles level (abbreviated as “SP” in tables and figures), the new concepts are referred to as first order principles. These coordinate abstract systems. An elaborated notion of the social contract, for example, results from the coordination of human interests (in which individual human beings are treated as systems). “Everybody wants to be treated equally and have a sense of fair play. Because this is so, we have an obligation to one another to enter into a social contract that optimizes equality and fairness.” Because, they are usually employed to coordinate abstract systems or emerge from the coordination of abstract systems, concepts like autonomy, fair play, heteronomy, higher order principle, and philosophical principle are rare before the single principles level. “The only time we’re justified in breaking the social contract is when a higher principle, such as the right to life, intervenes.” The most complex logical structure of this complexity level often identifies one aspect of a principle or axiom coordinating systems, as in “Contracts are articulations of a unique human quality, mutual trust, which coordinates human relations.” Here, contracts are seen as the instantiation of a broader principle coordinating human interactions.

Figure 5 presents a map of the performance of a 57-year-old male. Here, “mutual trust” is employed as a single principle supporting an argument for keeping promises. The rationale
for employing this principle is that “most social conventions” and “all moral principles” are based on trust. Both “all moral principles” and “most social conventions” are third order abstractions. Note how this single principles argument builds on the abstract systems notion that trust keeps society functioning.

**Figure 4**

It's all good

References
______(2003). Appendix B: letter report: the scientific basis of the popular literature on
generations. In Attitudes, aptitudes, and aspirations of American youth: implications
lifespan. In M. Commons, F. Richards & C. Armon (Eds.), Beyond formal operations,
Volume 1: Late adolescent and adult cognitive development (pp. 357-381). New
York: Praeger.
Arnett, J. (2000). Emerging adulthood: a theory of development from the late teens through
publications.
politics. In Individualization (pp. 22-30). London: SAGE publications.
Beck, U. (2001c). Losing the traditional: individualization and 'precarious freedoms'. In
Individualization (pp. 1-22). London: SAGE publications.
operations: Late adolescent and adult cognitive development (pp. 340-356). New
York: Praeger.
use. Drugs and Society, 8, 111-124.
Brainerd, C. J. (1993). Cognitive development is abrupt (but not stage-like). Monographs of
the Society for Research in Child Development, 58, 170-190.
Case, R., Okamoto, Y., Henderson, B., & McKeough, A. (1993). Individual variability and
consistency in cognitive development: New evidence for the existence of central
conceptual structures. In R. Case & W. Edelstein (Eds.), The new structuralism in
cognitive development: Theory and research on individual pathways (pp. 71-100).
Basel, Switzerland: S. Karger.
Special Section: Transitions to adolescence. Journal of Experimental Child
Psychology, 50, 370-395.
Cicala, J. J. (1997). The relationship between student involvement and reflective judgement
for students attending a community college. Us.
regular undergraduate program. In M. L. Commons, J. Demick & C. Goldberg (Eds.),
Clinical approaches to adult development (pp. 239-249). Norwood, NJ: Ablex.
Clinchy, B., Lief, J., & Young, P. (1977). Epistemological and moral development in girls from
a traditional and a progressive high school. Journal of Educational Psychology, 69,
337-343.
foundations and research validation. New York: Cambridge University Press.
judgment (Vol. 48 (1-sup-2)). New York.
Commons, M. L., Danaher, D., Miller, P. M., & Dawson, T. L. (2000, June). The Hierarchical
Complexity Scoring System: How to score anything. Paper presented at the Annual
meeting of the Society for Research in Adult Development, New York.
Hierarchical complexity of tasks shows the existence of developmental stages.
Developmental Review, 18, 237-278.
the world of work. New York: Basic Books.


When stages are defined in terms of particular conceptual content, it becomes possible to argue that (1) an individual is functioning at a given developmental level because he or she is capable of producing a particular conception, and that (2) an individual is capable of producing a particular conception because he or she is functioning at a particular developmental level. Single abstractions dominate by age 10 or 11 in most populations that have been sampled by developmental researchers. However, a small percentage of adults do not move beyond this complexity level in their moral reasoning.