

Intellectual and ethical development in higher education students — pedagogical implications

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ABSTRACT:

This article analyses some pedagogical implications of studies on the intellectual and ethical development of adults in general, and higher education students in particular. In an initial phase two studies are described (those of Perry and Kitchener and collaborators), with samples of higher education students in which one can see that their thinking developed, throughout their studies, from a radical absolutism to a progressive relativization of knowledge. Subsequently (1) the results are analysed of the research that shows that few higher education students reach the most advanced stages of intellectual and ethical development, and (2) the main implications of these results are identified in pursuit of the goals of higher education. Finally some strategies are proposed with a view to triggering the intellectual development of the students.

KEY WORDS:

Intellectual development, Higher education students, Higher education aims, Triggering intellectual development.

WILLIAM PERRY'S STUDY ON THE INTELLECTUAL AND ETHICAL DEVELOPMENT OF UNIVERSITY STUDENTS

When in 1953, upon request from the Bureau of Study Counsel of Harvard University, William Perry began a research project, published in 1970 under the title *Forms of Intellectual and ethical development in the college years: a scheme*, he could never have imagined the repercussions it would have on subsequent studies concerning the cognitive and ethical development of adults in general, and higher education students in particular.

The main issue that the members of the Bureau of Study Counsel asked him to analyse consisted of finding out why some students, many of whom used his services, seemed to show a certain disorientation when faced with the multiplicity of conceptual frameworks and a relative conception of knowledge, while others were at ease in a scientific universe that took into account the contextual and idiosyncratic dimensions of knowledge.

Aimed at clarifying this question, Perry analysed through questionnaires and interviews, the answers from a sample of approximately 500 students, 84 of whom were monitored over time. The findings enabled him to identify 9 *positions, forms or structures* (Perry, 1970, pp. 1-2) which succeeded one another in a logical and integrative order, going from absolute bipolarity to the understanding that the knowledge and values can be contingent and relative.

In position 1 *Basic Duality*, the students (usually freshers) view knowledge and values in bipolar terms (true/false; good/bad) and argue for absolute answers to all questions; in the next positions (*Early Multiplicity* and *Late Multiplicity*), thanks to the interaction with different teachers and their peers, they become progressively aware of the multiplicity of conceptual frameworks and the uncertainty inherent in any knowledge, although they attribute this to the incompetence of teachers or mere intellectual exercises, and as such do not assign it epistemological legitimacy. Only in the next two *positions* (*Correlative Multiplicity* or *Subordinate Relativism* and *Diffused Relativism*) do the students adopt a relative conception of reality, attributing epistemological legitimacy to the uncertainty and diversity of opinions.

From the 5th position onwards, according to Perry, there are no longer *major* evolutions, either of a conceptual nature or an ethical nature, as the chief concerns of the students now shift to starting, and later assessing and deepening Commitments, in a relative world in accordance with the epistemological conceptions and values that have been built.

THE STUDIES OF KITCHENER AND COLLABORATORS ON THE DEVELOPMENT OF REFLECTIVE JUDGEMENT

Following on from William Perry's study, Kitchener and collaborators, based on the assumption that (see Kitchener & Brenner, 1990; Kitchener & King, 1981, 1990a, 1990b) the epistemological conceptions affect the way problems are understood and solved, namely loosely structured problems¹, analysed changes in conceptions of higher education students as regards knowledge and its sources, trying to ascertain whether the decisions they took were justified in the light of these conceptions (Kitchener & King, 1981, 1990a, 1990b). To do so they built a structured paper and pencil interview — the *Reflective Judgement Interview* — in which the subjects are invited to reflect on dilemmas concerning historical, scientific or everyday knowledge, explained according to different perspectives which were generally conflicting.

The results obtained in the sample of 900 subjects, 200 of which were studied over time, led to the identification of 7 stages which the students went through, like in Perry's study, from total objectivism to progressive relativism. In the two first stages (for more detailed analysis see Marchand, 2001a/2005, 2001b, 2002a, 2002b, 2004), the students advocated that knowledge was an absolute certainty, although not always immediately available. From the third stage they progressively became aware that knowledge was contextual and idiosyncratic and argued that different justifications or arguments should be assessed as to their sustainability, evidence and coherence, among other criteria, although they also showed great difficulty in doing so in a systematic manner. According to Kitchener and King (1990a), many higher education students who are nearing the end of their studies showed this kind of reasoning.

From the sixth stage onwards the students understood the contextualised, relative and uncertain nature of knowledge, becoming aware that some knowledge was deeper than other knowledge and they were able to assess it better, taking into account the aforementioned criteria. According to the authors, this kind of reasoning would be specific to post-graduate students. In the seventh and last stage of Reflective Judgement, the subjects advocated that

knowledge derived from a complex set of evidence and opinions, constantly assessed and critically reassessed. According to Kitchener and King (1990a), this kind of reasoning was specific to some middle-aged highly educated adults.

Simultaneously to the studies of Kitchener and collaborators several other research projects on cognitive development in adult life were carried out (see Commons *et al.*, 1982; Kramer; 1983, 1989; Richards & Commons, 1984, among others) in which the findings were extremely similar to those of Perry, and the above authors.

The consistency of the results of these studies made it possible to identify the following specific features (see Kramer, 1983, 1989) of an adult's thinking: (1) the awareness and understanding of the *relativist* and not *absolutist* nature of knowledge; (2) *acceptance of contradiction*, as part of reality (3) *integration of the contradiction in all-encompassing systems*, i.e. in the entire dialect (Kramer, 1989).

SOME RESULTS OF RESEARCH INTO INTELLECTUAL DEVELOPMENT OF HIGHER EDUCATION STUDENTS

Taking the models of the aforementioned authors as the framework, other studies were carried out that clearly showed that few adults in general, and higher education students in particular reached the highest levels of intellectual development. Kitchener and collaborators (see Kitchener & King, 1990a, 1990b; Kitchener *et al.*, 1989), for example, ascertained that: (1) most university students under 24 years old did not reason at a higher stage than stage 4 of the Reflective Judgement Model, (2) most students who carried out post-graduate studies were in stage 5, and (3) that only 50% of students over 25 years old reasoned in line with the last stage of the aforementioned model. In the words of the authors commenting on these results, “educators should not think that young university students can understand or use what Dewey described as reflective thinking” (Kitchener & King, 1990a, p. 167). Research carried out at Denver University (see Lynch & Kitchener, 1989, cited by Kitchener & King, 1990a) showed that students not only did not use the specific reasoning of the highest stages of the Reflective

Judgement Model, but that they also had difficulty in understanding the arguments of one or two stages above where they were currently situated.

The results of the studies of Kramer and Woodruff (1986) showed, on the one hand, that dialectical thinking (thinking that, as mentioned earlier, takes into consideration the interactive and interdependent nature of events) manifested itself above all from middle age onwards, with most adolescents and young adults at absolutist and relativist levels.

These results are important insofar as they help to explain how students fulfil the chief goals of higher education and how they perceive and live their university career.

IMPLICATIONS OF THE RESEARCH RESULTS ON THE INTELLECTUAL DEVELOPMENT OF HIGHER EDUCATION STUDENTS IN PURSUING THE GOALS OF THIS TEACHING LEVEL

In order to strive to achieve the main aims of higher education (see Stevens-Long & Barner, 2003) which are on the one hand, to develop scientific, human, cultural, moral and ethical knowledge², and on the other hand to endow students with the capacity to research, the main tasks of the students, especially those who attend post-graduate studies, should comprise essentially: (i) assimilating knowledge of a different nature, (ii) identifying problems, reflecting on their nature and on the processes through which they can be solved (see Arlin, 1975); (iii) analysing conceptual models that are in constant transformation (see Basseches, 1984; Sinnott, 1981, 1984, 1993); (iv) becoming aware that knowledge has multiple and wide-ranging sources (see Commons & Richards, 2003); (v) comparing, transforming and summarising systems of relations, creating new fields of knowledge (see Commons & Richards, 2003; Richards & Commons, 1984) and (vi) understanding how to use critical reasoning, evidence and opinions to justify arguments in favour of the best or better solutions, especially regarding loosely structured problems (see Kitchener & King, 1990a, 1990b). To do so more complex and integrated levels of thinking should be implemented.

Given that most higher education students, as shown above, are not at these levels, the way to trigger their development should be searched for.

TRIGGERING THE INTELLECTUAL DEVELOPMENT OF HIGHER EDUCATION STUDENTS

Few authors, after carrying out studies on the intellectual and ethical development of the adult, go on to explicitly analyse the issue of the educational implications of their models in general and how to trigger this development in particular. William Perry and Karen Kitchener and collaborators are among the few authors who have tackled this question.

Starting by outlining the socio-cognitive skills required by society in the 1970s, a graduate, Perry (1970, p. 214) wrote: “fifty years ago our research suggested that a university graduate should have a conception of the world that is characteristic of position 3 or 4 (i.e. essentially characterised by absolutist thinking)³, thus showing himself to be a mature man. We now have to go beyond the assertion of individualism in certainty, affirming your individualism in doubt. This assumes a new attitude of the community in general, and teachers in particular”

Although aware of the indirect nature of the educational implications, Perry analysed some extensions of his study: (1) on the teaching/learning process (2) on triggering intellectual and ethical development, and (3) on the support that should be given to university students, namely when they make their first commitments.

According to Perry, the most difficult intellectual and ethical development moment occurs in the transition from the conception of absolutist and atomistic knowledge to the conception of relative knowledge. Such a transition is generally fraught with a degree of suffering, and can even lead to crises of a greater or lesser intensity. In order to support the students, the teacher should, in the words of Perry (1970, p. 211), “be less atomistic insofar as the students become able to carry out integration. A good teacher is one who develops the students’ ability to explore, research and draw grounded deductions. The assessment should go beyond the true/false (or wrong) dichotomy and stretch over time,

in step with the capacity to carry out discrimination between frameworks of complex interpretation.”

Therefore, intellectual and ethical development, namely development of the meta-thinking capacities, is, according to Perry, triggered by using teaching methods that encourage risk-taking, research and analysis of complex problems, likely to engender cognitive conflicts that make it easier to become aware of incongruent reasoning.

Commitment in active life is another difficult moment that may lead to instability and discomfort and could trigger crisis situations. In the words of Perry (1970, p. 215), “at this advanced stage of maturity the students should not have less support but more, and specially focused help. They need not only role models that stimulate them, but also the experience of mixing with them”

William Perry also advocates that it is up to the teachers to help the students “build their character” (1970, p. 212), whereby the teacher cannot adopt an attitude that what the students do with their skills is a personal and moral problem, rather than an intellectual one, and as such is outside their scope of responsibility. Perry says (p. 212), “epistemologically knowing the subject and what he knows are inseparable”

While William Perry only touches on the issue of triggering intellectual and ethical development suggesting, as mentioned earlier, that confrontational strategies should be implemented, and giving us little information about the moments of university life in which the students are at given stages or *positions* (ending up with the idea that there are big individual variations in how the sequence of stages is experienced), Karen Kitchener and collaborators give us precise indications about the moments at which most of the university students are in the stages of Reflective Judgement⁴ and describe the studies that aim to trigger its development in detail.

Like Perry, the strategy that they consider most efficient to trigger the development of Reflective Judgement is the deliberate use of cognitive conflict. According to these authors, given that university students in their initial years find it difficult to understand that there are problems which do not have definitive answers, neither now nor ever, a difficulty often accentuated by traditional teaching based on truths that are transmitted in an absolute manner

(Finster, 1991, cited Kitchener & King, 1990a), what is important is that throughout their university careers they are faced with loosely structured problems in several fields (for more details on the methodology used see Marchand, 2001a/2005, 2004).

Given that this kind of teaching generally causes a degree of discomfort, teachers should provide emotional support. In the words of the authors “as teachers, when we accept the task of deliberately educating to produce development, we are also accepting the responsibility of providing students with an environment that supports them both intellectually and emotionally” (Kitchener & King, 1990a, p. 168).

Confirming the discomfort highlighted by Perry and later by Kitchener are the findings of several recent research projects (see Nyquist & Woodford, 2000; Schoenholz-Read, 2000, cited by Stevens-Long & Barner, 2003) that show that university students and post-graduate studies very often go hand in hand with “an intense period of discomfort, destabilisation and cognitive struggle and transformation” (Stevens-Long & Barner, 2003, p. 3).

This discomfort derives from the evolution of the cognitive dimension, especially in understanding that the personal perspective is only one perspective in a multitude of possibilities and generally has consequences of an emotional nature, whereby the questioning of knowledge and perspectives with meaning for the subject (*meaning perspectives*) is experienced as a loss of the self (see Kegan, 1982).

Several studies also show that the cognitive evolutions throughout one’s university career are not only accompanied by important emotional experiences but, in certain cases, by successive reconstructions of the self. In a study carried out by Schoenholz-Read (2000, cited in Stevens-Long & Barner, 2003) higher education students describe this cycle of studies as a phase: (1) of intellectual tension, “broadening” and understanding of multiple perspectives, (2) of emotional change (progressive increase in patience, kindness and self-confidence) and (3) behavioural changes (less emotional reactivity; greater capacity to listen to others and respect and appreciation of different points of view). Stevens-Long (2000) quotes a post-graduate student who states that “experiencing mystery and uncertainty when writing a dissertation are essential aspects in a process of transforming the

self.” According to this author, the transformation of the self does not come about only during the process of writing the dissertation; such a transformation starts in the transition from “problem solving” to “problem discovering” and reinforces itself upon understanding that any perspective is just one more in a universe of possibilities.

As well as the deliberate use of cognitive confrontation, according to Stevens-Long and Barner (2003), there are three other ways of triggering the development of students: (1) belonging to a learning community; (2) the progressive understanding of the role of the self in the learning process, and (3) the progressive awareness of the influence of the cultural and social contexts in elaborating knowledge.

When students enter into a learning community (e.g. when they start their university or post-graduate studies), they generally accept a peripheral role in an asymmetric power relation in which the teacher is the possessor, to a greater or lesser degree of absoluteness, of the knowledge (the *authorities*) and the student is the receiver of this knowledge (see Perry, 1970). The prevailing relational model in higher education (Bartlett & Mercer, 2001, cited by Stevens-Long & Barner, 2003) is one of hierarchical power, in which the teachers transmit the knowledge to “ignorant” students, thus nurturing in them a dependent and conformist attitude. In Magolda’s study (1992), 68% of freshers stated they were very dependent on their teachers.

When the students shift from the periphery to the centre of the learning community the listeners in the teaching/learning process start playing more collegiate roles; students are expected to accept greater responsibility in directing their studies, with the teacher playing the role of a guide or mentor. The relationship becomes more equal and the parties in this process are viewed as co-creators of knowledge. This kind of relation, which is based on mutual loyalty and confidence, requires adjustments from both parties — the mentor must allow the students to develop their identity; the students must become less dependant on the mentor. Being at the centre of the learning, according to

Stevens-Long and Barner (2003), induces cognitive and emotional development. In the words of the authors, “when the students start post-graduate studies and begin a dialogue, involvement in the community and personal discovery in a more intensive manner, they start a learning and development phase in which emotion and cognition are integrated” (p. 27). In a study carried out by Stevens-Long and McClintock (2003), a student who moved from the periphery to the centre of learning said that he felt more confident and theoretically more rounded to carry out tasks, more aware of the conditions inherent to the situations and relations, and more reflective. Another one said he felt more integrated, cognitively and emotionally speaking. Another one said he was becoming more “human be-ing rather than human do-ing” (p. 28).

AS FOR A CONCLUSION

As for a conclusion, in order to successfully undertake the specific tasks of higher education the students should access, naturally or in a more deliberate manner, complex levels in which the intellectual dimensions and the self are integrated. To do so, higher education has to be structured so as to create conditions that allow the triggering of the cognitive development and the self of the students. As such, Stevens-Long and Barner (2003) proposes that university teachers: (1) stimulate more self-directed learning than they usually do (i.e. encourage the students to accept more responsibility in organising their study curriculum; stimulate them to identify innovative projects and work with loosely structured problems), (2) try to bring the student to the centre of the learning community as quickly as possible; (3) recognise the emotional implications (namely anxiety and changes in self-esteem) that go hand in hand with this process, and whenever possible, analyse these feelings with the students, and (4) encourage the students to think in more reflective, more dialectic and more dialoguing ways.

ENDNOTES

1. i.e. complex problems to which there is no single solution.

2. In higher education it is above all intellectual and cognitive performance that is evaluated. Moral, ethical and even behavioural aspects are generally not subject to assessment (see Stevens-Long & Barner, 2003). According to these authors, many employers complain that graduates do not possess the social and emotional skills needed in the workplace.

3. The brackets were inserted by the author of this text.

4. It is important to point out, however, that according to Kitchener and collaborators (Kitchener & King, 1990a, 1990b), the educational level is a more important variable than chronological age in the development of reflective judgement.

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