THE RELEVANCE OF THE QUALITY OF LIFE-EXPERIENCES FOR CITIZENSHIP DEVELOPMENT: AN INTER-DOMAIN DEVELOPMENTAL STUDY*

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There is no general agreement on the nature of developmental change (Demetriou & Raftopoulos, 1999). If the central aspect of development is change, developing cannot be equated to merely becoming different. The interest in using development as a conceptual tool comes from defining around it a particular kind of change that may enlarge our understanding of important changes occurring during the life course of humans. What develops becomes irreducible to what it was (*i.e.*, development involves emergence), involving a more complexly organized whole, with higher differentiation in its integrated parts (Demetriou & Raftopoulos, 1999; Lerner, 1986), a progression on qualitatively different levels of organization that both expand (with higher differentiation and integration) and include previous ones (Kohlberg & Wasserman, 1980; Piaget, 1977). Developmental change is then seen as the emergence of "more inclusive and cohesive", "more stable and effective" levels of organization (Demetriou, 1998, p.186), or "patterns of meaning-making" (Strange, 1999, p.574), where the integrated parts (such as behaviors) acquire meaning (Lerner, 1986). Besides this, psychological development has a spontaneous element: it happens as the person faces situations and finds out (and abstracts) ways of comprehending them by means of coordinating own actions and internal operations.

The study of developmental sequences, in various domains, has been a major concern in developmental psychology leading to the identification of several different domains and sequences but at the same time almost disregarding and forgetting "the larger picture" of how they could relate to each other and together describe the developing subject (Flavell, 1982; Steinberg, 2001). Inter-domain research, comparing development sequences and their relationships, does not abound. The present research project has an inter-domain focus, the two domains being: the moral, represented by Lind's description of the development of moral judgment competence (1985a), and the intellectual, as proposed in Perry's scheme of intellectual development (1970).

Perry's model of intellectual development

Since the seventies, several authors worked on revising and extending Piaget's description of intellectual development (e.g. Riegel, 1976; Commons & Richards, 1984; Kitchener & King, 1981; Sinnott, 1984). William Perry (1970) was one of the first and most influential. With a

scheme of intellectual and ethical development built to describe how college students construct the college experience in context, Perry focused on the conceptions of both nature and sources of knowledge and his findings are often read as referring to epistemological development (Hofer & Pintrich, 1997, Pillow, 1999). The "main line of development" (Perry, 1970, p. 9) has nine positions of increasing complexity, regarded as qualitatively different ways of construing meaning (Hofer & Pintrich, 1997, Strange, 1999). These positions are usually clustered in three levels: dualism, relativism and commitment within relativism (Pascarella & Terenzini, 1991). *Dualism* goes from straightforward distinctions of right vs. wrong associated with authority in knowledge and a belief in the certainty of truth (position 1) to the acknowledgement that sometimes authorities themselves disagree and so introducing some uncertainty at this stage, but still considered as illegitimate in terms of the status of truth, with regard to right vs. wrong authorities (position 2), to the acceptance of uncertainty of knowledge as legitimate but only in some areas and temporarily, where and as long as authorities have not found the true answers yet (position 3). The *relativist* level begins by generalizing legitimate uncertainty to all knowledge, which acquires the status of opinion. The epistemological realm becomes constituted by discrete entities with no internal structure or external relations with each other (position 4). When subjects start to perceive a contextual structure in knowledge and values (including authority's) they begin considering them as plural and produced by active selves but relative to contexts and so again analyzable and comparable with each other (right *vs.* wrong is now a special case) (position 5), and gradually become aware of their need to orient themselves in a relativistic world by personally committing in some areas (here opposed to the unquestioned or unconsidered commitment to a simple belief in certainty) (position 6). At this point subjects are in transition to the *Commitment within relativism* level, starting to commit in certain areas (position 7) then experiencing the responsibility implications of commitment (position 8), until finally considering the affirmation of identity among multiple responsibilities and perceiving commitment as an ever-unfolding activity closely connected to their life-style expression (position 9)[1]. Rapaport (2001) remarks that movement along these positions can happen back and forth (subjects can retreat to earlier positions or escape) and also that subjects' positions for different knowledge areas may be different at the same time[2].

Lind's perspective on the development of moral judgment competence

Lind (1985a) based his work on the previous work on moral cognition developed by Piaget (1985) and Kohlberg (1969, 1981, 1984). Piaget (1985) identified two distinct moral stages: the *heteronomous* morality stage or moral realism, based on obedience to rules and submission to power, and the *autonomous* morality stage or morality of cooperation that takes into account purpose and consequences of rules and considers obligation as subject to reciprocity and exchange. These stages were assumed to be "overlapping thought processes" with a gradual transition occurring as children were provided "opportunities for reciprocal social interaction" (Lickona, 1976b, pp.220-221).

Kohberg's model (1969, 1981, 1984; Levine, Kohlberg & Hewer, 1985) rests on the work of Piaget, but also on the philosophical moral principles of Kant, Dewey and Rawls (Rest, Narvaez, Thoma & Bebeau, 2000), and postulates the existence of three levels of moral judgment[3]: the *preconventional level* (when the subject judges from *outside* the social group), the *conventional level* (when s/he judges from *inside* the group) and the *postconventional level* (when subject's judgment takes a perspective *prior to* the social group's moral conventions and expectations) (Kohlberg, 1976), that comprise the well-known sequence of six stages of moral judgment[4]. Lind (1985a) takes Piaget's and Kohlberg's models as supplementary considering that moral judgment development is "a two-dimensional process in which Piaget's phases describe a recurring sequence of cognitive transformations on each of Kohlberg's stages" (p.38): within each level of socio-moral perspective there is a progression from the cognitive-moral phase of heteronomy to autonomy. He also rereads Kohlberg's model arguing that the structural aspect is distinguishable from the content aspect but ontologically inseparable from it. This means that content aspects are necessary to define the cognitive-moral stages that he understands as being types of socio-moral perspectives in which the content appears differentiated. Moral judgment competence, "the ability to integrate and differentiate moral principles and apply them to everyday decisions" (p.27), is seen as progressing developmentally, its structural component, "the organization and process of moral thinking, the way and the degree to which moral maxims or principles are brought to bear in specific situations" (p.30), being dynamic structures by their possession of meaning that is only determinable in relation to content. Progression happens toward higher integration (toward a more complex socio-moral perspective in formulating moral judgments), and at the same time, toward higher differentiation (higher accounting for the particular circumstances and the specific implications of a moral dilemma).

The relationship between the two models and the role of the developmental quality of life-experiences

When one considers the relationship between these two particular models there seems to be no work providing a definite answer. If we look at the relationship between the intellectual and moral domains prior research reports mostly moderate positive correlations, not accounted for by age or educational differences (King, Kitchener, Wood & Davidson, 1989). The results are consistent with the position held by Kohlberg (1976; Kohlberg and Wasserman, 1980) in which he regards intellectual development as a necessary but not sufficient condition for moral reasoning. So, although the distinctness of the moral domain is asserted, the relationship between domains is one of subordination of moral to intellectual development: "Because moral reasoning clearly is reasoning, advanced moral reasoning depends on advanced logical

reasoning. A person's logical stage puts a certain ceiling on the moral stage he or she can attain" (Kohlberg & Wasserman, 1980, p.561).

In terms of the relationship between these domains it is important to note that both models used in the study presented here relate developmental change to the overcoming of conflict in the meaning-making structures and assume an interactionist perspective (Hofer & Pintrich, 1997; Lind, 1985a, 1985b), stating that individuals and environments play an active role in bringing about opportunities for development (Brandstädter & Lerner, 1999; Lerner, 1986).

The interactionist perspective is nowadays widely accepted, the course of development being shaped by active individuals in active environments (bi-directional interactions). Development is then seen as a fully relational happening between the individual agent in a certain active environment (Brandstädter & Lerner, 1999; Bronfenbrenner, 1979, Bronfenbrenner & Evans, 2000; Lerner, 1986; Sameroff, 1982), a "dynamic process of mutual shaping and influence" (Strange, 1999, p.579). As a consequence, researchers are now paying more attention to contexts and transactions between contexts and individuals (Flanagan & Sherrod, 1998; Lerner & Galambos, 1998; Strange, 1999; Steinberg, 2001) as important to understand psychological development. This "pronounced shift toward studying the contexts in which these developments take place" (Steinberg, 2001, p.97) strives to identify particular dimensions within contexts that appear to be most relevant, such as the family, the school, the peer group or the workplace.

A somewhat different approach within such an understanding of development draws attention to the transaction situation, to the *interaction* between individuals and their contexts, an interaction where development may occur, by searching for more transversal features of contexts concerning their developmental quality, *i.e.* their quality for bringing about developmental change. The focus here is on the opportunities certain life-experiences may provide for involvement in situations where usual ways of meaning-making are set in conflict or contradiction and whether or not the context also provides the atmosphere for these to be productive in generating more stable and complex ways of doing so.

Several theorists and researchers highlight general elements of appropriate action and integration. For Piaget, peer interaction and the exposure to feelings and attitudes of others are considered important sources of development (1977) by confronting the individuals with the reasoning of others and promoting the rise of cognitive conflict, i.e. internal contradictions in the reasoning structures (Lickona, 1976a). For example, in a study involving children, interactions with peers and debates produced heightened awareness of the rights of others, especially of those actively engaged in the debates (Damon, 1998). Piaget used the concept of reflective abstraction to refer to the mechanism that enables the cognitive system to overcome the conflict situation by unifying "a series of actions and their results into a new structure that removes conflicts and inconsistencies generated earlier" (Demetriou, 1998, p.198). Kohlberg (1976) also

considered opportunities for social interaction and reciprocal communication as a source of cognitive conflict and therefore as stimulating development. He referred to them as role-taking opportunities (Kohlberg, 1976), favoring development when they provide problems that defy subjects' reasoning and expose it to the perspectives of others in "an atmosphere of interchange and dialogue" of different views (Kohlberg and Wasserman, 1980, p.563). Damon and Colby (1996; Lind, 2000) argue that "direct engagement with moral issues, in a context that provides several different but integrated sources of guidance and support" (p.36) is required to promote integrated moral development. Studies from learning environments' role-taking curricula, combining real and significant experiences with their examination and discussion, show a positive impact on the developmental level of students and professionals that actively engage in them, from adolescents to adults (King & Kitchener, 1994; Lind, 2000; Reiman & Peace, 2002; Sprinthall, 1991; Sprinthall & Hall, 1992; Sprinthall & Scott, 1989; Sprinthall & Thies-Sprinthall, 1980; Thies-Sprinthall, 1984; Thies-Sprinthall & Sprinthall, 1987)[5]. A reference to "optimal discrepancy" (Lickona, 1976a; Sprinthall, 1991; Strange, 1999) needs to be made. The support and reflection, the action opportunities and the exposure to difference must be present and balancing "developmental matching and mismatching", these depending on the initial levels of development (Lind, 2000; Reiman & Peace, 2002; Sprinthall, 1981; Strange, 1999). A balance between reflection and practices embedded in a variety of immediate engagement experiences in communities and institutions appear as lying at the core of integrated development for both the intellectual and the moral domain.

However, research has not considered the developmental quality of life-experiences in non-intentional[6] settings. The present study assumes that, due to their differential features, some everyday life-experiences may also offer those who engage in them a variety of opportunities for development: for example, participation in the civil society can provide experiences that may have continuity, personal significance, and appeal for several different tasks of varying complexity. Thus, the elements of challenge and support, of action and reflection may be an important part of experiences such as getting involved in political parties, unions, social movements, volunteer work in the community, religious or recreational associations. These may (at least for some of those involved) have the high quality social interaction features that seem to prompt development in both intellectual and moral domains.

This adds an extra feature to this study. In times where citizenship and citizenship education are major concerns of social scientists and policy makers, putting a focus on real life participation experiences and how these can be related to developmental outcomes, with the use of at least one instrument adapted to political content in its items (the intellectual development measure) may shed some light on the relevancy of non-intentional settings such as those afore mentioned in the political and civic development of young subjects.

Therefore, the goals of this study were to investigate: i) the relation between two accounts of different psychological domains, in particular between Lind's model of moral development and Perry's model of epistemological development; ii) the impact of (broadly defined) political life-experiences of differential developmental quality in both domains.

Method

Sample

A total number of 237 of late adolescent, young adults and adults with high school, college or higher educational levels were tested in group settings between May and June of 2001. Sample's distribution across the main demographic variables is presented in Table 1.

Table 1

Sample's Main Demographic Characteristics.

Demographic variables		Number of subjects	Percentage of total sample
Age	15 to 18	60	27
	19 to 23	103	46.4
	24 or more	59	26.6
Gender	Male	43	18.6
	Female	188	81.4
Educational level	High school	90	39.3
	College or more	139	60.7

Instruments

a) The *Moral Judgment Test (MJT, Lind & Wakenhut, 1985; Portuguese version by Bataglia, 1998)* is a paper and pencil test designed as an experimental questionnaire: the subject's response is seen as behaviour where both moral attitudes and moral cognition are manifest. It aims to assess the structural-cognitive and the content-affective aspects of moral behavior by combining a preference and a recognition task (Lind, 2003; Lind & Wakenhut, 1985). It "consists of elements (responses to items) and their relationship (factorial design). Whereas items elicit individual behavioral acts, the factorial design is devised to reveal the hypothesized dispositions" (Lind & Wakenhut, 1985, p.86). Subjects are presented with two dilemmas (mercy killing and breaking the law for a good reason) and for each they are asked: i) their opinion about dilemma's resolution; ii) their evaluation of the relevance of arguments in favor of the presented resolution; iii) their evaluation of the relevance of arguments against the presented resolution. There is one argument, both in the "in favour" and in the "against" sets, representing each one of the six stages of moral development described by Kohlberg. This makes it possible to assess: a) the affective content by focusing

on the "direction and intensity of the stage-typical concerns"; and b) cognitive structure in the "consistency of judgment behaviour regarding one's concerns independent of their opinion conformity" (Lind & Wakenhut, 1985, p.85). Its major index, *C index*, is a pure moral competence index that "indexes the degree to which subjects apply consistently their own moral values and norms", *i.e.*, the degree in which moral considerations account for subjects' moral behaviour (Lind, 2003, p.5). The *C index* varies from 0 to 1.00 – values can be transformed into percentages. A categorized variable of *moral competence* varies from low (.01-.09), to medium (.10-.29), to high (.30-.49) and to very high (above .50) (Lind, 2003). As stated, the MJT is an experimental questionnaire and common empirical criteria are not appropriate for validity and reliability checking; these are verified using both theoretical and psychological criteria (Lind, 2003).

b) The *Scale of Politic (Escala da Política, EP, Ferreira & Menezes, 2001)* is an adaptation to political contents of one of the scales of the Portuguese version of the Parker Cognitive Development Inventory (PCDI, Parker, 1984; Portuguese version by Ferreira & Bastos, 1995). Items were rewritten (in order of acquiring a political content) - adolescent and adult cognitive/ intellectual developmental theories were reviewed in order to build a framework capable of providing the underpinnings for the rewriting procedures maintaining the items' developmental meaning. The EP presents to the subjects items representative of the three major modes of thought described by Perry in his works: *dualism*, *relativism* and *commitment within relativism* conceived as an evolving sequence of complexity of thought. Each of these modes of thought is represented by a set of items – a subscale. The subject has to rate his/her agreement to each item. Factor analysis returned a good three-factor solution, consistent with the expected instrument's structure: factor_1 (hereafter called *dualism*) representing dualist sub-scale (α= .6983), factor_2 (hereafter called *relativism*) representing the multiplicity/ relativistic sub-scale (α= .6104), and factor_3 (hereafter called *commitment*) representing the commitment within relativism sub-scale (α= .6534). Although reliability values only are acceptable, a confirmatory factor analyses further confirmed the instrument's structure – indexes were, in fact, quite high: *dualism* CFI= 1.000; *relativism* CFI= .996 and *commitment* CFI= .993. A score is found per subscale and represents the mean agreement to the items in the corresponding subscale. In the used version, complete agreement equaled 1 and complete disagreement equalled 4; in other words, the higher the score, the higher the disagreement expressed to the items of the particular subscale.

c) The *Life-Experiences Questionnaire (Questionário das Experiências de Vida, QEV, Ferreira & Menezes, 2001)* has been designed in order to be a simple, paper and pencil, instrument that could tap subjects' participation experiences in associations and other civil society structures and the developmental quality of those experiences. It is theory-guided and follows the remarks made by Lind (2000) aiming to collect both objective and subjective information on the developmentally important features of experiences. The basic logic of this

instrument has been, in fact, inspired by and abstracted from Lind's ORIGIN/u questionnaire (Lind, 2001).The QEV has two distinct parts. In the first one, the subject is asked to report if s/he had or did not have the experience of participating in several civil society structures (e.g., political parties, students associations, social movements, religious associations, etc). Duration and age of participation is also asked. In the second part, subjects are told to think about the most significant experience (from their personal perspective) and to report how certain aspects related to the quality of the experience are present. This second part is divided into two major components: (a) the opportunities to actively engage in different types of relevant real actions (e.g., looking for information, participating in activities, organizing activities, decision making, etc) and (b) the frequency of opportunities to share and confront their perspectives into an accepting, challenging and reflexive environment (e.g., your opinions were accepted and respected, there were several different points of view in discussion; elements were concerned with justifying their views; different views were analyzed and reflected upon, etc). Both of these components are considered as factors and the factor analyses are consistent with this assumption. Two factors - qev_1 and qev_2 - emerged representing, qev_1 (hereafter called *action*), the first component and, qev_2 (hereafter called *reflection*), the second. Reliability values and confirmatory analyses indexes support the factorial structure of this second part of QEV: *action* α= .8566 and CFI= .973; *reflection* α= .7347 and CFI= .995. Results are essentially descriptive for the first part, concerning, among other things, *duration* and *variety* of participation experiences. For the second part results are the scores in the factors - *action* and *reflection* - and their combination.

Table 2 describes the whole range of dimensions/variables of the study.

Table 2

Description of the dimensions of the questionnaire and the variables used in the study.

Instruments	Variables
Moral Judgment Test (MJT)	*C index*: Dependent variable computed using the author's algorithm. It varies from 0 to 1.00 and refers to the level of moral considerations that account for moral behavior.
Political Scale (EP)	*Dualism*: Dependent variable computed from the scores (mean of the ratings of the items) in the Dualism factor.
	Relativism: Dependent variable computed from the scores (mean of the ratings of the items) in the Relativism factor.
	Commitment: Dependent variable computed from the scores (mean of the ratings of the items) in the Commitment within Relativism factor.
Life-Experiences Questionnaire (QEV)	*Action*: Dependent variable computed from the scores (mean of the ratings of the items) in the Action factor.
	Reflection: Dependent variable computed from the scores (mean of the ratings of the items) in the Reflection factor.
	Variety: Independent variable that has three different categories: Null: no experiences reported; Low: one or two different type of experiences; High: more than two different types of experiences.
	Duration: Independent variable that has three different categories: Null: no experiences reported; Low: only sporadic or during less than three months; High: during three months or more.

Instruments	Variables
	Action_Cat: Independent variable that has three different categories: Null: no experiences reported; Low: action scoring below or on the median of the sample; High: action scoring above the median of the sample.
	Reflection_Cat: Independent variable that has three different categories: Null: no experiences reported; Low: reflection scoring below or on the median of the sample; High: reflection scoring above the median of the sample.
	Action-Reflection: Independent variable that has four different categories: Null: no reported action or reflection; Low: both action and reflection scoring below or on the the median of the sample; Unbalanced: scoring above the median in one and below or on the median on the other of the action and reflection variables. High: scoring above the median of the sample in both action and reflection.
Biographic variables	*Gender*: Independent variable. Two categories: masculine and feminine.
	Age: Independent variable. Three age groups: from 15 to 18; from 19 to 23; 24 or more.
	Educational level: Independent variable. Two levels: High School and College or more.

Results

As mentioned above, this study had two major goals: studying the relations between the two domains and observing the impact of the quality of broadly political, participation, experiences in both domains. For this reason the results section is divided into three different parts: i) results using biographical variables; ii) testing the relation between the two domains and iii) testing impact of life-experiences. The alpha value of .05 was used for all statistical tests.

Effects of age, educational level and gender

Age, educational level and gender are important biographical variables against which the developmental measures should be examined. Using these biographical variables as independent variables and *C index*, *dualism*, *relativism* and *commitment* as dependent, the GLM multivariate analysis results show that *age* ($F = 2.695$; $p = .007$; $eta^2 = .049$; observed power = .932) and *educational level* ($F = 5.315$; $p = .0001$; $eta^2 = .092$; observed power = .970) produce statistically significant and relevant effects while *gender* ($F = 0.890$; $p = .471$; $eta^2 = .017$; observed power = .280) does not bring about any meaningful differences in any of the dependent variables considered. On the contrary, *age* shows interesting results on both *dualism* ($F = 4.085$; $p = .018$; $eta^2 = .037$; observed power = .721) and *commitment* ($F = 6.343$; $p = .002$; $eta^2 = .056$; observed power = .896). Post hoc tests (Scheffé) reveal that the older subjects (the 24 or more group) score clearly higher on dualism (this means they reject more the dualist statements) and lower (so rejecting less) on the *commitment* variable than the other two age groups (see Table 3). *Educational level* also brings about differences between groups but only in the *dualism* variable ($F = 17.637$; $p = .0001$; $eta^2 = .077$; observed power = .987). Effects on all the other dependent variables are not statistically significant and have low eta^2 ($\leq .010$) and observed power ($\leq .315$). Pairwise comparisons for *educational level* show that differences are displayed in the expected direction with the more educated group (the college or more group) scoring higher (this means rejecting more) on the dualist factor (see Table 3).

Table 3
Multiple Comparisons Sheffé Test Results for Age and Pairwise Comparisons (Bonferroni Correction) for Educational Level.

Dependent Variable	Independent Variable (I)	Independent Variable (J)	Mean Differ. (I-J)	Sig.
Dualism		Age Groups		
	15 to 18	19 to 23	- 0.0174	.971
		24 or more	- 0.1868	.073
	19 to 23	24 or more	- 0.1694	.067
Commitment		Age Groups		
	15 to 18	19 to 23	0.0359	.816
		24 or more	0.2319	.002
	19 to 23	24 or more	0.1960	.003
Dualism		Educational Levels		
	High School	College or more	- 0.447	.0001

Testing the relation between the two domains

Analysis of correlations between the variables from the moral and the intellectual domains, *C index*, *dualism*, *relativism*, and *commitment* (Table 4), shows that the only correlation reaching statistical significance is between *relativism* and *commitment* ($r = .268$; $p = .0001$). All other correlation values are in fact very low ($|r| < .100$) although occurring in the expected directions: positive correlation between the *C index* and *dualism* and between *C index* and *relativism* – indicating that the higher the value of *C index* the higher the score on *dualism* and *relativism* (subjects reject more the dualism and relativism items); negative between the *C index* and *commitment*, so the higher the *C index* the lower the rejection of *commitment* items.

Table 4
Correlations Table for the Development Variables of Both Domains.

		C index	Dualism	Relativism	Commitment
C index	Pearson Correlation	1.000			
	Sig. (2-tailed)				
	N	234			
Dualism	Pearson Correlation	.024	1.000		
	Sig. (2-tailed)	.710			
	N	234	235		
Relativism	Pearson Correlation	.056	-.070	1.000	
	Sig. (2-tailed)	.395	.288		
	N	234	235	235	
Commitment	Pearson Correlation	-.070	-.038	.268	1.000
	Sig. (2-tailed)	.289	.566	.0001	
	N	234	235	235	235

Testing the impact of life-experiences

In order to test the impact of life-experiences on the development variables (both moral and intellectual) GLM multivariate analysis were performed. In both the analysis *C index*, *dualism*, *relativism* and *commitment* were the dependent variables. In the first analysis the independent variables were *variety*, *duration*, *action_cat* and *reflection_cat*. Results from this analysis show that *action_cat* ($F = 2.349$; $p = .056$; $eta^2 = .052$; observed power = .671) and *variety* ($F = 2.055$; $p = .089$; $eta^2 = .046$; observed power = .605) have interesting results, even without reaching statistical significance, each accounting for about .05 of the variance in the dependent variables although the observed power to make these estimates is not too high. Both these effects are produced mostly in the commitment factor as revealed by "tests between-subjects effects" (*action_cat* on *commitment*: $F = 7.429$; $p = .007$; $eta^2 = .041$; observed power = .774 and *variety* on *commitment*: $F = 4.158$; $p = .043$; $eta^2 = .023$; observed power = .527). Post hoc Scheffé test showed that, for both variables, they concern differences between the groups scoring high (whether in *action_cat* or in *variety*) and the groups scoring low or null (see Table 5).

According to the theory life-experiences are of higher developmental quality if both action and reflection elements are present. To test the impact of life-experiences and their differential developmental quality, another GLM analysis was also performed after computing *action-reflection*, the variable that represents the synthesis of *action* and *reflection* factors (see Table 2). Results indicate that this variable impacts developmental measures (used as dependent variables) having, in fact, a statistically significant effect ($F = 2.498$; $p = .003$; $eta^2 = .045$; observed power = .975).

Table 5
Multiple Comparisons Scheffé Post Hoc Tests for Action_cat and Variety.

Dependent Variable	Independent Variable (I)	Independent Variable (J)	Mean Differ. (I-J)	Sig.
Commitment		**Action_cat**		
	Null	Low	- 0.0227	.945
		High	0.1640	.059
	Low	High	- 0.1867	.006
Commitment		**Variety**		
	Null	Low	0.0243	.999
		High	0.2124	.020
	Low	High	0.2100	.004

Table 6
Scheffé, Multiple Comparisons, Post Hoc for Action-reflection.

Dependent Variable	Independent Variable (I)	Independent Variable (J)	Mean Differ. (I-J)	Sig.
Commitment		**Action-Reflection**		
	Null	Low	-0.0494	.923
		Unbalanced	0.0639	.847
		High	0.2258	.020
	Low	Unbalanced	0.1133	.408
		High	0.2752	.001
	Unbalanced	High	0.1619	.121

These effects exist especially for the *commitment* factor where *action-reflection* accounts for about 8% of the variance, estimated with high observed power ($F = 6.303$; $p = .0001$; $eta^2 = .081$; observed power = .964). The results concerning the impact on *dualism*, *relativism* and *C index* do not show any important impact of this variable on them. Investigating which groups differed reveals that those with high *action-reflection* score reject less the *commitment* factor than those in the null and low groups (see Table 6).

Discussion

Predominantly this study found *commitment within relativism* as a differentiating mode of thought when analyzing the impact of non-intentional and real-life experiences of different developmental qualities, in what can broadly be called civic participation. This is in fact consistent with the *commitment within relativism* theoretical accounts. By merging together elements of ethical, identity and intellectual development this mode of thought may be also grasping in a more complete way the developmental outcomes achieved in complex relational settings and multidimensional experiences such as those civic/political. The results obtained in this study also show that these experiences, and their variety, can impact the developmental outcomes of individuals. The opportunities for action they bear especially when subjects engaged in various experiences concur for the subjects to move towards a level of more complex intellectual functioning (as revealed in the significant impact of *action_cat* and *variety* variables in the *commitment within relativism* factor, with those reporting a high number of action opportunities and of high variety agreeing more with the commitment within relativism items than those who had null or low action opportunities or null or low variety of them). The importance of particular features of these experiences is also reinforced by the results obtained. According to the theoretical model described here the developmental quality of an experience is high when it provides high and integrated levels of action and reflection opportunities to the subjects. In this study we tried to translate that into the *action-reflection* variable and results indicate that those subjects engaging in high-quality experiences actually exhibit more the

commitment within relativism mode of thought than those having no experiences or low-quality ones[7].

Also, the intellectual development measures used in this study discriminate between age groups and educational levels, the two most common and researched predictors. In fact, the college or more group (includes both college students and graduates) rejects the dualist statements significantly more than the high school educational level group. This high school group includes high school students and those who, although older, never enrolled in college. It is yet important to note that the sample is mostly composed of students and therefore proper comparisons between those who proceeded to college and those who did not enrol in higher education cannot be achieved in this study. Age groups also produced meaningful differences regarding the intellectual development measures. That is particularly the case for those in the 24 or more age group. These not only reject dualist positions significantly more but also display more the *commitment within relativism* mode of thought than both other, and younger, age groups. This seems to be indicating that the college experience may help students to depart from the dualist positions and achieving more complex modes of thought. Yet, to move towards more complex thinking, beyond relativist positions, it seems to be necessary to go beyond college[8]. After the educational experiences such as college, and not discarding the possibility that these experiences can actually be replaced by others in what concerns their developmental utility in the subject's life course, older subjects had opportunities to further develop the *commitment within relativism* mode of thought. Other opportunities for development such as professional experiences have certainly influence but as shown in the context of this study, and here it is important to bear in mind that the intellectual development measure was adapted so items displayed political content, the life-experiences regarding broadly political engagement and participation in the civil society structures such as social movements, political parties or associations, also impact the factor of commitment within relativism.

The same ability to discriminate between age groups and educational levels was expected to happen regarding the moral development measure, but was not found. What was found, was the non-existence of relevant differences in moral judgment competence across age groups and educational levels and the non-impact of life-experiences, and their features, on the moral judgment competence of the individuals in the sample. Inter-domain results indicated a low and statistically insignificant correlation with the intellectual domain variables. Although these correlations have the expected direction (the higher the *C index* the higher the rejection of dualist and relativist modes of thought and the lowest the rejection of commitment within relativism mode of thought) the moderate correlations expected could not be found. The general "necessary but not sufficient" relation is not clearly disconfirmed by this study but no advance is achieved in the study of how these two domains relate. Difficulties in the comparability of measures of different domains might have concurred to these results.

Despite the limitations of this study, the results in the intellectual domain variables not only confirm some of the expected patterns, but also give clear indications of the relevancy of some of the hypothesis advanced therefore opening interesting topics to be addressed by further research. It is important to note that civic/political participation experiences can provide individuals with opportunities for engaging in real and meaningful actions that, especially when balanced with an environment that promotes open reflection, interchange and dialogue, concur to develop more complex and integrated modes of thought in individuals – at least when these regard political content. These findings, consistent with those from intentional settings, clearly indicate that in domains such as political development more attention should be granted to the self-sought spontaneous experiences and their developmental quality. And, given the current emphasis on formal citizenship education and service-learning projects within educational policy documents (Torney-Purta, Schwille & Amadeo, 1999) and educational research (Battistoni, 1997; Morgan & Streb, 2001; Youniss, McLelland, & Yates, 1997) it seems particularly relevant to consider how experiences in voluntary associations and community projects should be organized in order to promote adolescents and young adults' political development.

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[1] Some authors prefer to use four levels instead of three when grouping the nine positions (Belenky Clinchy, Goldberger & Tarule, 1986; Hofer & Pintrich, 1997; Rapaport, 2001) with the new level, *multiplicity*, falling between dualism and relativism (positions 3 and 4).

[2] It is beyond the scope of this paper to review major critiques to this model. However, besides claims of gender bias (Belenky et al, 1986), several authors have considered that the last positions are deficiently theorized (Basseches, 1988; Hofer & Pintich, 1997; King & Kitchener, 1994) with positions beyond the fifth not accounting for the way knowledge is constructed but for commitment processes and for more broad world views (Basseches, 1988).

[3] These are close parallels to the levels in moral behavior development proposed by Dewey (see Kohlberg and Wasserman, 1980).

[4] In fact, although Kohlberg has revised the model to five stages (after encountering lack of empirical evidence on the existence of the sixth stage) most authors still use the six stage sequence.

[5] These investigations on the of impact of the conditions of role-taking and inquiry on the development of students and professionals continues presenting results and an account of what today is called *learning-teaching framework* (LTF) can be found at Reiman & Peace (2002).

[6] Non-intentional settings are considered those not explicitly designed as deliberate interventions, educational or others.

[7] No meaningful differences were found regarding the unbalanced group (when individuals had high results in one of the factors – action or reflection – and low in the other one). More research is necessary to understand what happens when opportunities for action and reflection are unbalanced in subjects' experiences. It will be necessary to use larger samples that permit breaking this group in several others with specific combinations of unbalanced action and reflection to see what sort of combination produces what sort of impact in developmental measures.

[8] This does not mean to refer to post-graduate studies, a hypothesis that cannot be tested in the present study, but to experiences beyond the college educational settings and normal ages.