

# Child's Personality and Perception of Parental Relationship as Correlates of Optimal Experience

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**Abstract** The study was designed to assess the influence of child's personality and perception of parental relationship on children's optimal experiences. We proposed functional and dysfunctional models to analyze the increase or the decrease of the children's flow experience. The sample of this study included 909 middle class children, aged 9–12 ( $M = 11.02$ ,  $SD = 1.08$ ), both sexes, from Argentina. When we analysed the psychological factors that could be related to the flow state in childhood, we found out that the child's perception of a functional parental relationship, in which there is either acceptance or moderate control, indirectly affects the flow experience, through child's personality—extraversion, openness to experience, and conscientiousness. Functional personality traits have an important positive effect on optimal experience when they are considered as a unit. In the dysfunctional model of flow, the results showed that the child's perception of parental pathological control had an important positive effect on neuroticism and —through this—a negative effect on flow. The child's perception of parental negligence did not have a significant effect on neuroticism; however, neuroticism still maintained its negative effect on flow.

**Keywords** Flow · Optimal experience · Personality · Parental relationship

## 1 Introduction

Csikszentmihalyi (1999) defines optimal experience or flow as the mental state that results from total engagement in an activity that requires high concentration. It is a mental state in

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which the person is so involved in a given task that nothing else matters at the time, and the experience is so enjoyable that the individual wants to engage in it even though it may require the expense of considerable energy or effort (Cuadra and Florenzano 2003).

Flow is a multidimensional construct (Jackson and Marsh 1996) that includes both cognitive and affective components (Luna et al. 2002). For Csikszentmihalyi (1999), there are many characteristics that describe the flow experience. The most common are clear goals, immediate feedback, extreme concentration, a balance between challenges and skills, the exclusion of irrelevant content from consciousness, control over the activity, a distorted sense of time, and an intrinsically rewarding activity.

An optimal experience exists when there is a balance between the challenges brought about by the activity and the ability to face the task, as perceived by the subject. Negative experiences may be promoted by two possible imbalances between challenges and ability: anxiety, which occurs if challenges overcome skills, and boredom, which occurs if abilities overcome challenges (Nakamura 1988). When an activity presents clear challenges and it enables the subject to develop the corresponding ability, then people experience a high level of flow (Mesurado 2007).

The optimal experience is a process that is preceded by conditions that are required to fulfill the experience and followed by certain consequences that originate during the process (Hoffman and Novak 1996). Chen et al. (1999) consider that the flow process is characterized by three dimensions or states: (1) clear goals, immediate feedback, and balance between skills and challenges as antecedents; (2) a merging of awareness and activity during the experience; and (3) the resulting distortion of the sense of time, which is accompanied by the loss of self-consciousness.

A flow state can be experienced by anyone, regardless of age, sex, culture or socio-economic level. The authors posit that flow is a universal phenomenon, though the activities that result in flow may vary widely due to cultural influences (Asakawa 2010; Csikszentmihalyi 1990; Delle-Fave et al. 2003).

Csikszentmihalyi also acknowledges that there are other elements that may promote flow, such as society, strong family relationships (Rathunde 1988, 2001) and personality types (autotelic personality) (Csikszentmihalyi 1990, 1996).

In recent years, the amount of empirical research on optimal experience its various characteristics has increased. However, Stein et al. (1995) contend that such antecedent variables should be clarified and that the mechanisms influencing these experiences still remain unknown. At present, there are few studies that attempt to identify the psychological variables that influence or may even predict such an experience.

Studies suggest that both external and internal conditions may affect the state of flow (Lewis 1996; Salanova et al. 2006). Some activities favor optimal experiences because they present external conditions as concrete objectives such as an appropriate degree of challenge, a supply of intrinsic feedback, and extreme concentration, which eliminates distractions (Lewis 1996). At the same time, the occurrence of flow partly depends on the characteristics of the person (Lewis 1996) as some people are good at using their skills to make the most of the opportunities around them, and they can easily concentrate on an activity rather than on themselves. Such people are said to have a “flow personality” (Lewis 1996).

As the theory of flow suggests that some family contexts and some personality traits may be associated with optimal experience, it may be interesting to analyze these influences.

### 1.1 The Role of the Family in Optimal Experience

According to Csikszentmihalyi (1990), Csikszentmihalyi and Csikszentmihalyi (1988), for many people, the most significant experiences result from family relationships. In the case of children, who primarily spend most of their first years at home, the family context becomes an important factor that may generate and promote the optimal experience.

Rathunde (1988, 1996) agrees that when a family structure encourages the flow experience, children develop the necessary abilities to transform ordinary situations into opportunities for enjoyment and growth (Csikszentmihalyi and Csikszentmihalyi 1988).

To generate flow states, it is important that the family sets demanding objectives and uses clear feedback mechanisms to show children how close they are to fulfilling their objectives (Csikszentmihalyi 1990).

A school or family context enhances flow experience by both supporting students' interests and challenging students to work at developing those interests (Rathunde and Csikszentmihalyi 2005). Rathunde (1996, 2001) found that the interaction of family support and challenge shows the highest level of flow, undivided interest, and goal directedness in tasks.

However, Dailey (2008) argues that some challenging behaviors prompted by parents may be either positive or negative for adolescent development. In fact, challenging behaviors that are manipulative or aggressive are qualitatively different from more constructive forms of challenges, and as such, they belong to domains such as psychological control. The effect of challenges on adolescent development is moderated by the support the adolescent receives. When challenge is accompanied by support, the former brings about clear opportunities for development. On the contrary, when there is a lack of support, challenge leads to results that are not as positive.

Rathunde (1997) further suggests that "family communication complexity" is associated with optimal experience, according to what has been reported by family members. Complexity in this context means an optimally functioning family system in which its members are both integrated and differentiated. Thus, when family members listen to each other (integration) and speak as individuals (differentiation), their communication shows greater complexity.

Although different authors have studied the influence of family on flow, there are no studies on a key aspect of child development: the effect of children's perception of parental relationship or children's perception of parental styles on optimal experience.

Perhaps the most complete explanation regarding parental styles was that proposed by Baumrind (1991), who identified and described four basic parenting styles that constitute variations of practices of acceptance-rejection and control of their children. Authoritative parents display high levels of both responsiveness and control, and they are warm, nurturing, and sensitive to their child's needs. Authoritarian parents display low responsiveness and high levels of control. Indulgent parents use high responsiveness but low control, while uninvolved parents display low levels of both responsiveness and control. Schaefer (1965) hypothesized that only children's perception of parental behavior influences children's behavior, and accordingly, he developed a model based on three dimensions. The dimensions include acceptance (responsiveness) versus rejection, psychological autonomy versus control (demandingness) and negligence versus firm discipline. "Support is similar to what others called responsiveness" (Baumrind 1989, in Rathunde 1996, p. 613) or acceptance (Schaefer 1965). "Challenge shares similarities with demandingness" (Baumrind 1989 in Rathunde 1996, p. 613) or control (Schaefer 1965). According to Schaefer (1965), control can be exerted by parents along a continuum, that is, in a moderate and appropriate way (accepted control), in the form of strict supervision (strict

control) or in a harsh way (pathological control). We follow the Schaeffer model because, as previously mentioned, it emphasizes the effect of a child's perception on the child's behavior (Schaefer 1965). Evidence from several studies is consistent with the model (Richaud de Minzi 2007; Schaefer 1965; Schaefer and Edgerton 1985).

One of the major resources children must perceive is that of a protective relationship with their parents (Richaud de Minzi 2006). Such protection tends to promote the abilities that help children to face challenging situations. Consequently, it may be inferred that a certain perception of parental relationships may promote the optimal experience in children. Family relationships create a family environment that may encourage or impede positive experiences among family members.

When adolescents feel that their parents support them and that significant persons (father, mother, friends, teachers) meet their psychological needs, adolescents can face their conflicts and challenges in a more active, flexible and positive way, while when interactions are coercive and teenagers are ignored within their family units, they act passively and inflexibly when facing challenges (Richaud de Minzi 2005).

When children perceive hostility from their parents, it is more likely that they will develop depression and anxiety (Cabrera et al. 2006). Furthermore, when a child perceives that he/she has a bad relationship with his/her parents, especially when the child feels he/she is being ignored, it leads to maladaptive coping mechanisms, such as inhibition (Richaud de Minzi 2002). Thus, it may be inferred that when children have to face a challenging activity that leads to flow, they may believe that they do not possess the necessary resources and skills to face the challenge, and consequently, the child may experience a state of anxiety that obstructs the optimal experience.

According to Csikszentmihalyi (1990), it is necessary for children to perceive unconditional acceptance from their parents. When parents threaten to remove their love if the child does not meet their expectations, the child, possessing a natural motivation to play and engage in an activity, will most likely withdraw and be plagued by chronic worry. The mental energy of such children should be focused on their protection; thus, the quantity of energy devoted to activities that lead to flow will be reduced. However, if children feel that their parents are unconditionally engaged with their well-being, they can relax and explore the world without fear. Needless to say, unconditional love does not mean that a relationship does not have norms or punishments if someone violates the rules. On the contrary, when breaking a rule does not have any consequence, the rule loses its meaning, and without significant norms, an activity cannot be enjoyed, nor can it lead to flow. Children must know that their parents expect certain behavior from them and that there will be negative consequences if the children are not obedient. But children should also perceive that irrespective of what happens, their parents' interest and love for them is not at risk (Csikszentmihalyi 1990).

## 1.2 Personality and Flow

As Lewis (1996) suggests, an important internal condition that promotes flow is personality, which results in individual differences in the ability to experience flow (Collins et al. 2009).

Neither the objective challenges posed by a certain task nor the objective level of ability explains the different subjective experiences such a task may trigger. Some people have the capacity to recognize that the challenges presented by an activity are equivalent to their ability, while other persons may only find obstacles when facing the same activity. It is the individual who determines if an activity will produce flow, anxiety or boredom (Csikszentmihalyi and Csikszentmihalyi 1988).

The concept of autotelic personality is theoretically associated with the flow experience. Autotelic means “producing enjoyment” (auto = self, and telos = goal) (Rathunde 1988; Nakamura and Csikszentmihalyi 2002; Asakawa 2004), which means that those with an autotelic personality have the ability to produce, by themselves, opportunities of enjoyment that are independent of the objective characteristics of the activities. Asakawa (2010) suggests that “an autotelic individual is a person who has a strong tendency to find flow in his or her daily activities” (p. 206).

Keller and Bless (2008), based on Csikszentmihalyi, define the autotelic personality “as the conjunction of receptive qualities (i.e., openness to new challenges) and active qualities (i.e., readiness to engage and persist in highly-challenging activities)” (p. 203). Csikszentmihalyi (1990) states that emotional security in the first years of life may be a condition that helps to develop an autotelic personality in children.

People with an autotelic personality aim at self-realization; thus, they do not pay attention to themselves. The narcissist's worry and concern for oneself prevents his/her from making the most of opportunities and from optimizing his/her skills, thus developing a lifestyle characterized by anxiety and boredom (Csikszentmihalyi and LeFevre 1989).

Nakamura and Csikszentmihalyi (2002) assert that the autotelic personality state is characterized by the following meta-skills: curiosity and interest in life, persistence, and low self-centeredness. Asakawa (2004) contends that autotelic students tend to spend more time on schoolwork and overall active leisure than their non-autotelic counterparts. At the same time, Asakawa finds that autotelic students are more concentrated and more active, experience more enjoyment, more satisfaction and more control than their non-autotelic counterparts. Furthermore, they place greater importance on the future, than non-autotelic students.

At the moment, there is no specific instrument to identify or assess autotelic personality. In fact, the autotelic personality has been described by a set of characteristics that mimic those traits that describe optimal experience. Consequently, one of the aims of the present work is to empirically study the relationship between flow experience and personality as assessed by a psychometric test. We have chosen a measure based on the Big Five Model of Personality, which proposes five broad dimensions of personality. These dimensions are used to describe human personality as a stable structure and include openness (which involves active imagination, aesthetic sensitivity, and intellectual curiosity), conscientiousness (which includes traits such as self-discipline, thoroughness, organization, and a need for achievement), agreeableness (the tendency to be pleasant and accommodating in social situations), neuroticism (the enduring tendency to experience negative emotional states), and extraversion (the tendency to be gregarious, to be assertive, to seek excitement and challenges) (Costa and McCrae 1991; Gallagher 1990).

There is considerable literature from Freud to Rogers that suggests the interactions of parents with their children are among the major determinants of personality (McCrae and Costa 1988). Reti et al. (2002) found that parental behavior as perceived by the child influences the child's personality. Thus, lower parental acceptance and higher parental pathological control were related to increased neuroticism in the child. Another study finds that openness to experience, low neuroticism, and extraversion were related to parental acceptance (Metsäpelto and Pulkkinen 2003).

We hypothesize that receptive qualities (i.e., openness to new challenges) and active qualities (i.e., readiness to engage and persist in highly-challenging activities), defined by Csikszentmihalyi as characteristics of the autotelic personality, are well assessed by openness and extraversion, respectively, from the Big Five. A tendency to control and to give importance to the future are aspects of conscientiousness, while neuroticism is a trait that expresses a tendency to experience negative emotional states that prevent people from

making the most of their opportunities and using their skills, two essential behaviors for experiencing flow. In the present study, we have not included agreeableness because we hypothesize it is not theoretically associated with the optimal experience. Agreeableness is instead related to social sensitivity, whereas flow is, according to Csikszentmihalyi, an intrinsic and individual experience (1999).

### 1.3 Aims of the Study

The first aim of the study is to test whether there is a relationship between the child's perception of parental acceptance and the child's level of flow, and whether that relationship is mediated by the child's level of positive personality traits, that is, extroversion, openness, and conscientiousness, or to psychological well-being (Costa and McCrae 1980; González Gutiérrez et al. 2005).

The second aim of the study is to test whether there is a relationship between the child's perception of parental moderate control and the child's level of flow, and if so, if the relationship is mediated by the child's level of positive personality traits.

A third aim of this study is to determine if there is a relationship between the child's perception of parental negligence and the child's level of flow and, if so, if that relationship is mediated by the child's level of neurotic personality traits.

A final aim of the study is to assess whether there is a relationship between the child's perception of parental pathological control and the child's level of flow, and if so, whether that relationship is mediated by the child's level of neurotic personality traits.

We pose the following four hypotheses:

1. Perceptions of parental acceptance are expected to be positively related to the child's positive personality traits, which are in turn, expected to be positively related to the child's level of flow. This model is called the "functional model of optimal experience—acceptance".
2. Perceptions of parental moderate control are expected to be positively related to the child's positive personality traits, which are in turn, expected to be positively related to the child's level of flow. This model is called the "functional model of optimal experience—moderate control".
3. Perceptions of parental negligence are expected to be positively related to the child's neurotic personality traits, which are in turn, expected to be negatively related to the child's level of flow. This model is called the "dysfunctional model of optimal experience—negligence".
4. Perceptions of parental pathological control are expected to be positively related to the child's neurotic personality traits, which are in turn, expected to be negatively related to the child's level of flow. This model is called the "dysfunctional model of optimal experience—pathological control".

## 2 Methods

### 2.1 Participants and Procedure

We invited 1,060 children to participate in the study. Thirty-nine parents did not return written permission. Because 112 participants (11%) were excluded for not reporting flow experience, the final sample included 909 middle class children aged 9–12 ( $M = 11.02$ ,

$SD = 1.08$ ) of both genders (432 boys and 477 girls), from primary schools in Buenos Aires, Tucumán and Catamarca, Argentina. The participants completed the questionnaires in groups of approximately 20 children in one session of 1 h.

## 2.2 Ethical Procedures

Consent for this project was obtained at multiple levels. First, heads of schools at potential research sites were asked to discuss the project with the researchers. They were provided with a copy of the research proposal, and the characteristics of the research were explained. Once permission was received from heads of schools, a letter was sent to the household of each child explaining the aims of the project and the procedures to evaluate children. They were clearly told that participation was voluntary and anonymous. Written permission from each father and mother was obtained before the data collection began. Finally, children were informed of the purpose of the study. They were then instructed on data collection procedures, and reminded that they could refuse to answer questions if they chose to. There were no objections from the children.

## 2.3 Instruments

### 2.3.1 *Optimal Experience*

The Optimal Experience Scale for Children by Mesurado (2008) was used to measure flow. This assessment was performed by presenting the participant with a phrase that evoked a subjective experience of intrinsic motivation, and was based upon Csikszentmihalyi's phrase (1982). This phrase was as follows: "I am not thinking something else. I am totally involved in what I am doing. I feel good, I do not have pain and I don't seem to hear anything. I am less aware of myself and my problems. I am concentrate on my activity. I think that if my mother called me or phone/doorbell rang, I would not listen. When I start, I really do shut out the whole world. Once I stop, I can let it back in again". Then, the participant was asked whether he/she had had a similar experience before. Afterwards, the participant was asked to pinpoint an activity during which he/she had felt in a similar manner. Finally, the participant was asked to rate 26 items about flow during his/her experience, 13 of which were semantic differential items related to affective (e.g., happy versus sad, excited versus bored) and cognitive states (e.g., alert versus drowsy, clear versus confused) Participants rate each affective and cognitive items on a seven-point scale. The other 13 were Likert items which measured the perceptions of achievement (e.g., Were you succeeding at what you were doing?) and ability (e.g., Do you think that you have the enough capacity to overcome that challenge?) Participants rate each perception of achievement and ability items on a 5-point scale rating from 1 (disagree strongly) to 5 (agree strongly).

The exploratory factor analysis was carried out, the KMO was .912. The method of principal Components, oblimin solution was employed. For the definitions of factors only the variables with a factor weight of 1.301 or more were taking into account (Norman and Streiner 1994). The Catell graphic method was employed for the determination of number of factors. The exploratory factor analyses of items showed two factors: one related to cognitive and affective experience ( $\alpha = .80$ ) and another one related to achievement and ability perceptions ( $\alpha = .77$ ) (Mesurado 2008, 2009).



### 2.3.2 Children Perception of Parental Relationship

The Argentine Scale of Children's Perception of their Relationships with their Parents (Richaud de Minzi 2007) is a self-report questionnaire designed to be used to assess 8 to 12-year-old children's perceptions of parent-child relationships. It is composed of 32 items. The answer to each item may be Yes, More or less, or No.

Two factor analyses were carried out, one for fathers and one for mothers. The KMO was .953 for mothers and .929 for fathers. The method of principal Components, oblimin solution was employed. For the definitions of factors only the variables with a factor weight of 1.30 or more were taking into account (Norman and Streiner 1994). In the two factor analyses the Cattell graphic method was employed for the determination of number of factors.

The two factor analyses showed five dimensions: Acceptance (seven items;  $\alpha = .92$  for mother,  $\alpha = .89$  for fathers), Normal or Acceptable Control (five items;  $\alpha = .75$  for both parents), Strict Control -although non-pathological, it is less accepted- (5 items; alpha .81 for mothers and alpha .65 for fathers), Pathological Control (10 items;  $\alpha = .72$  for mother,  $\alpha = .81$  for fathers) and Negligence (five items,  $\alpha = .60$  for both parents).

The first type of relationship includes the following dimensions: acceptance, child centeredness, acceptance of individuation and positive involvement. The second one includes control-related items, but only those which are correlated with acceptance (For example, "They make sure I come back home on time."). The third one, strict control, includes items such as: "He/she insists I should do my homework," or "He/she makes sure I obey his/her orders." The fourth type -pathological control- covers the following dimensions: hostile control ("They believe they punishing me they will mend my misbehavior"), instilling persistent anxiety ("When I misbehave, they worry because I will suffer the consequences when I become an adult"), withdrawal of relations ("If I do something wrong they stop talking me") and control through guilt ("I get the blame for everything they have to do for me"). And the fifth, negligence ("Let me go anyplace I please without asking").

As we mentioned above, the correspondence between the Schaeffer (1965) taxonomy with Baumrind's one would be as follows: Acceptance-Responsiveness; Accepted Control—Demandingness; Strict control—High Demandingness; Pathological control—Very High Demandingness; and Negligence—Lack of Demandingness. In this work we decided to study the effect of three levels of control: lack of control (negligence), moderate control (accepted control), and very high control (pathological control. We decided not studying the effect of strict control that is an intermediate level between moderate and very high control.

### 2.3.3 Personality Traits

Argentine Scale of Personality for Children (Lemos 2006). This instrument was built to measure personality traits in children and it is based on the Costa and McCrae NEOPI-R (Costa and McCrae 1980; McCrae and Costa 1991; McCrae et al. 2004; McCrae et al. 2005; Costa et al. 2008) that operationalizes the "big five" model of personality. The Argentine Scale of Personality for Children is composed of 46 items. The answer to each item may be Yes, Sometimes or No. This questionnaire assesses five factors of personality: neuroticism ( $\alpha = .79$ ) (e.g., "I need other people to help me solve my problems no matter how small they are"), extraversion ( $\alpha = .80$ ) (e.g., "I like being in places with lots of other young people", "I like scaring movies"), openness to experience ( $\alpha = .56$ ) (e.g., I think it's interesting to learn and develop new hobbies), conscientiousness ( $\alpha = .71$ ) (e.g., I am



organized, I like to keep everything in its place) and agreeableness ( $\alpha = .77$ ) (e.g., I can trick someone without them realizing it -reverse item-).

## 2.4 Statistical Procedure

Structural equations modeling analyses were conducted to explore the functional and dysfunctional models of optimal experience, by using the software program AMOS 16.0 (SPSS Inc. 2007). Following the two-step modeling approach recommended by Anderson and Gerbring (1988), we tested a measurement model of the hypothesized latent variables before evaluation our structural model of interest. Confirmatory factor analysis was used to test the factor structure of the latent constructs.

The following goodness of fit indices were used: Chi-square, the ratio of the Chi-square statistic to degrees of freedom ( $\chi^2/df$ ), the goodness of fit index (GFI), adjusted goodness of fit index (AGFI) and bentler-bonett normed fit index (NFI). Root mean residual (RMR) and root mean square error of approximation (RMSEA) were used to measure error.

## 3 Results

### 3.1 Descriptive Analysis

Table 1 displays the descriptive statistics and Table 2 displays the zero-order correlations for the child's personality and perception of parental relationship, and optimal experience variables. The results indicated significant but moderate correlations between mother and father acceptance and father and mother acceptable control with both dimensions of flow (Affects and cognition, and Achievement and ability perceptions). On the contrary, father and mother pathological control and father and mother negligence were not associated with two flow dimensions. In the case of personality variables, extraversion and conscientiousness were positively correlated with both affects and cognition, and achievement and

**Table 1** Descriptive statistics of child's personality and perception of parental relationship and two dimensions of flow

Variables	<i>M</i>	<i>SD</i>	Minimum	Maximum
1. Affects and cognition	6.02	.79	2.47	7
2. Achievement and ability perceptions	4.04	.57	1.36	5
3. Father's acceptance	2.53	.40	1	3
4. Mother's acceptance	2.66	.33	1	3
5. Father's moderate control	2.54	.50	1	3
6. Mother's moderate control	2.64	.44	1	3
7. Father's negligence	1.93	.53	1	3
8. Mother's negligence	1.89	.47	1	3
9. Father's pathological control	1.92	.44	1	3
10. Mother's pathological control	2.00	.47	1	3
11. Neuroticism	2.4	.31	1	2.86
12. Extraversion	2.28	.44	1.25	3
13. Openness to experience	2.38	.31	1.5	3
14. Conscientiousness	2.12	.32	1	3

**Table 2** Zero-order correlations for child's personality and perception of parental relationship and two dimensions of flow

Variables	Affects and cognition	Achievement and ability perception
1. Father's acceptance	.19***	.22***
2. Mother's acceptance	.27***	.30***
3. Father's moderate control	.10**	.10**
4. Mother's moderate control	.13***	.15***
5. Father's negligence	.02	.01
6. Mother's negligence	-.01	.03
7. Father's pathological control	.04	.07
8. Mother's pathological control	.02	.06
9. Neuroticism	-.10**	-.14***
10. Extraversion	.12***	.17***
11. Openness to experience	.06	.02
12. Conscientiousness	.25***	.28***

$N = 909$ ; \*\*\*  $p < .001$ ;  
\*\*  $p < .01$

ability flow dimensions whereas neuroticism was negatively correlated with them. Openness to experience was not associated with flow.

### 3.2 Study of Measurement Models

In general, the measurements models fit the data adequately (See Table 3).

### 3.3 Structural Models

#### 3.3.1 Functional Model of Optimal Experience: Acceptance

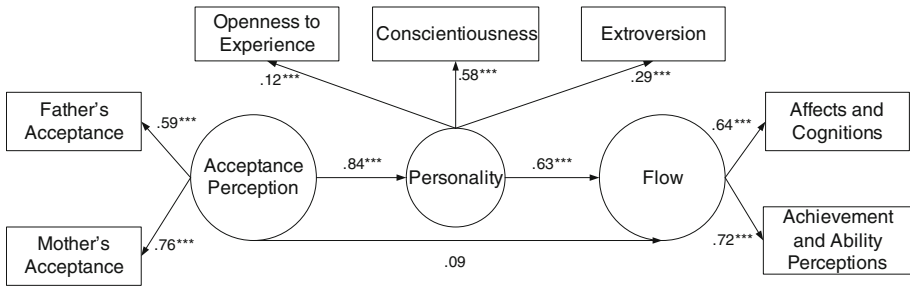
The theoretical model fit the data very well,  $\chi^2(11) = 15.00$ ,  $p = .24$ ,  $\chi^2/df = 1.36$ ; GFI = .99; AGFI = .99, NFI = .98, RMR = .003, RMSEA = .017 and it is depicted in Fig. 1. As it can be seen in Fig. 1, the influence of acceptance on flow occurs only indirectly, through the child's personality.

#### 3.3.2 Functional Model of Optimal Experience: Moderate Control

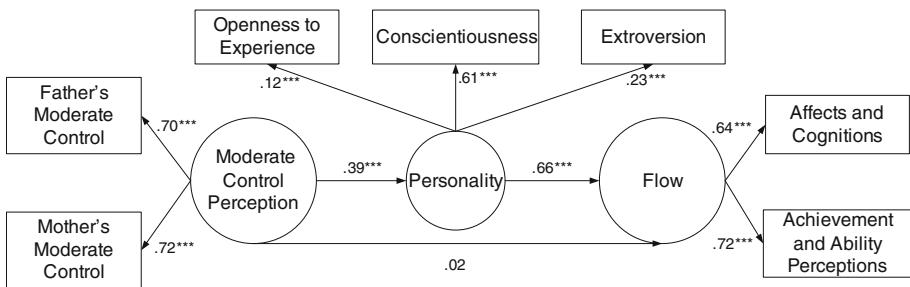
The theoretical model fit the data very well,  $\chi^2(11) = 23.00$ ,  $p < .018$ ,  $\chi^2/df = 2.09$ ; GFI = .99; AGFI = .98, NFI = .97, RMR = .004, RMSEA = .035 and it is depicted in Fig. 2. As in the previous model, moderate control only has an indirect influence on flow.

**Table 3** Fit Index values for the six latent construct models that will be use in the functional and dysfunctional models

	$\chi^2$	df	$\chi^2/df$	GFI	AGFI	RMR	RMSEA
Combine parental styles dimensions (mother and father acceptance, mother and father moderate control, mother and father pathological control and mother and father negligent)	262	14	18.71	.93	.83	.01	.14
Combine personality trait	28.89	3	9.63	.98	.95	.01	.09
Flow scale dimensions (affects, cognitions, achievement, ability and perceptions)	14.1	1	14.1	.99	.92	.01	.12



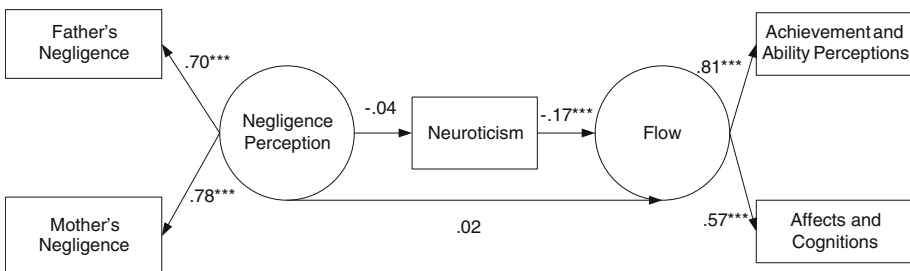
**Fig. 1** Functional model of optimal experience—acceptance. *Note:*  $N = 909$ ; \*\*\* $p < .001$



**Fig. 2** Functional model of optimal experience—moderate control. *Note:*  $N = 909$ ; \*\*\* $p < .001$

3.3.3 Dysfunctional Model of Optimal Experience: Negligence

The first dysfunctional model proposes that child perception of negligent relationship has direct influence on neuroticism and indirect effect -through neuroticism- on flow. Negligence does not have a significant effect either on neuroticism, or on flow but neuroticism has a direct and negative effect on flow. The final model fit the data extremely well,  $\chi^2(3) = 3.9, p = .418, \chi^2/df = 1.3, GFI = .99; AGFI = .99, NFI = .99, RMR = .004; RMSEA = .000$  and it is depicted in Fig. 3.



**Fig. 3** Dysfunctional model of optimal experience—negligence. *Note:*  $N = 909$ ; \*\*\* $p < .001$

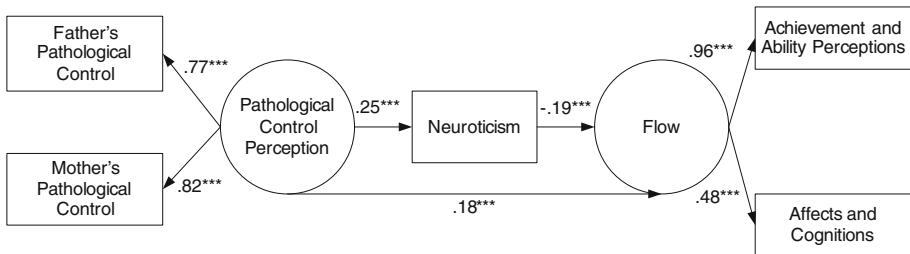
### 3.3.4 Dysfunctional Model of Optimal Experience: Pathological Control

The second dysfunctional model described above proposes that the child’s perception of an authoritarian parental relationship has direct influence on neuroticism and an indirect effect—through neuroticism—on flow. Neuroticism, in turn, has a direct and negative effect on flow. This model fit the data extremely well,  $\chi^2(3) = 4.2, p = .237, \chi^2/df = 1.4, GFI = .99; AGFI = .99, NFI = .99, RMR = .005; RMSEA = .002$  and it is depicted in Fig. 4.

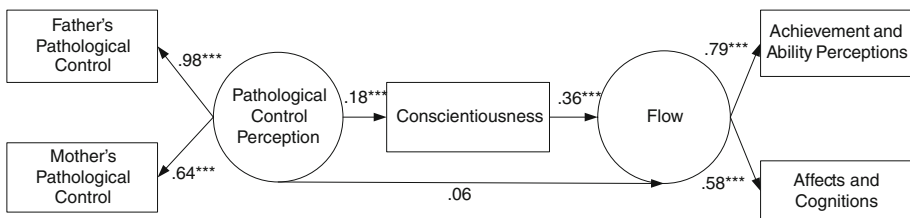
Note that the direct influence of pathological control on flow is positive. This unexpected result may be explained through the importance of control in experience of flow. To test this hypothesis, we studied the following model that related pathological control to conscientiousness (that implies self-control and responsibility) and this in turn with flow. This model fit the data extremely well,  $\chi^2(4) = 7.96, p = .09, \chi^2/df = 1.99, GFI = .99; AGFI = .99, NFI = .99, RMR = .007; RMSEA = .03$  and it is depicted in Fig. 5.

## 4 Discussion

In this work we have studied four hypotheses concerning the relationships among parental styles, personality, and flow in childhood. As regards the two first hypotheses expressed by the “functional model - acceptance” and the “functional model of optimal experience - moderate control”, we found that a child’s perception of a functional parental relationship positively influences the flow experience. During childhood, parental acceptance seems to have an important effect on optimal experience. When children feel that parents support them and unconditionally love them, they perceive an environment full of peace and trust, which enables them to employ all the energy on an intrinsically motivating task which they



**Fig. 4** Dysfunctional model of optimal experience—pathological control. Note:  $N = 909; ***p < .001$



**Fig. 5** Model of optimal experience—pathological control with conscientiousness on flow. Note:  $N = 909; ***p < .001$

enjoy. A moderate control also affects flow, because it would be important for children to have parents who guarantee limits that calm them.

However, it is very important to note that both acceptance and moderate control have only an indirect influence on flow. Keller and Bless (2008) assert that specific personality characteristics will probably enhance or decrease the possibility of undergoing flow experience. In this study, parental style appears to have its effect on flow by first affecting personality, which in turn affects flow.

When studying the effect of child's personality on flow, the influence is direct, indicating that this variable is probably crucial in the explaining of the development of flow experience. The models proposed show that all the functional personality traits studied in this research (Extroversion, Openness Experience and Conscientiousness), when considered as a whole, have an important effect on flow.

Concerning the third and fourth hypotheses expressed by the “dysfunctional model—pathological control” and the “dysfunctional model of optimal experience—negligence”, the results showed that the perception of parental pathological control has an important effect on flow. Neuroticism also has a very important negative influence. Pathological control is a hostile control, which leads to persistent anxiety. Children perceive that their parents threaten to remove their love and impose a feeling of guilt. These parents do not give their children the necessary support for a healthy development and promote the neurotic personality in them. The neurotic personality trait is characterized by psychological uneasiness, which is an emotional problem that obstructs the flow experience. The reason for this may be that high levels of extreme self-criticism and vulnerability may affect both the achievement and ability perceptions, as well as the cognitive and affective experiences, which are elements that compose the flow.

It is important to note that this negative form of relationship between parents and children has both a direct and an indirect effect on flow. In the case of personality, the parental pathological control has a positive influence in the development of neuroticism in children, and in turn, neuroticism has a negative influence on flow, as we have just said. As regards direct effect of pathological control on flow, it is surprising that this effect is positive. To clarify this finding, we included conscientiousness instead of neuroticism as an intermediate variable. We found that it would apparently be the responsibility stressed by the pathological control more than its neurotic aspect that would produce the effect over flow.

When we analyzed the “dysfunctional model of flow—negligence”, the results showed that the perception of parental negligence does not have a significant effect either on neuroticism, or on flow. Neglect occurs when parents are unable to provide nurturance, stimulation, and support to the child at various stages of development, which does not favor his/her optimal functioning (Wolfradt et al. 2003). These kinds of parents interact poorly with their children and do not speak, play, or encourage new activities. An extreme lack of control seems to leave children without support and limits for their development and without opportunities to grow emotionally and socially. Behavioral control involves parents limiting, restricting, or monitoring their children's behaviors (Barber 1994). Guiding and monitoring children's behavior lead to development or learning (Morton and Mann 1998). For Dailey (2008), limiting or restricting young children's behavior is necessary to help them to learn self-regulation.

Summing up, the positive parental style indirectly affects flow experience and directly affects personality development, which in turn affects flow. Moreover, a negative parental style, it only seems to have an influence when the control is pathological and extreme, but no when the control does not exist.

## 5 Limitations and Future Research Directions

A limitation of the present study comes from the use of a one-time self-report, which means that there is an inherent method effect contributing to the strength of all of the correlations. The study was based on cross-sectional data, so the direction of the effects in the models is not clear. Also, alternative models contrary to the hypothesis were not tested. Finally, the alphas for negligence from perception of parental relationship and openness to experience from personality were modest. Future research efforts directed at studying flow using methods other than self-reporting, in different times and different stages of development, will be necessary. Furthermore, it is worth noting the importance of the study of precursors of flow using longitudinal studies.

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