

IUL School of Social Sciences

Department of Social and Organizational Psychology

Children's and adolescents' self-representations in the context of adverse family experiences: emotional, relational and cognitive processes, and implications for psychosocial functioning

Carla Sofia Carvalho de Freitas Silva

A thesis presented in partial fulfilment of the requirements for the degree of

Doctor in Psychology

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[October, 2017]



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is endless.

Resumo

Neste projeto foram analisados três aspetos, ainda pouco explorados, acerca das autorepresentações de crianças e adolescentes: 1) a sua relação com a exposição ao conflito interparental destrutivo; 2) a sua construção no contexto do mau trato/negligência parental; e, 3) as suas associações com o funcionamento psicossocial das crianças/adolescentes no contexto destas experiências familiares. Para tal, foram realizados dois estudos transversais. No primeiro, com base na teoria da segurança emocional, analisou-se o papel mediador da insegurança emocional das crianças/adolescentes na relação interparental, e da sua percepção acerca da relação com ambos os pais, na relação entre o conflito interparental e as suas autorepresentações. Os resultados suportaram o papel mediador destes dois processos nessa relação. No segundo estudo, testou-se a "Looking-Glass Self Hypothesis" (LGSH), isto é, a relação entre as hetero-representações de outros significativos e as auto-representações através das meta-representações, no contexto do mau trato/negligência, tendo-se em conta o papel moderador da comunicação pais-filhos nesse processo. A LGSH foi suportada em todas as dimensões avaliadas. Em cada estudo foi ainda analisado o papel mediador das autorepresentações na relação entre estas experiências familiares adversas e o funcionamento psicossocial das crianças/adolescentes. Os resultados salientaram o papel específico e diferenciado de várias dimensões de auto-representações como mecanismos intervenientes nessa relação. Estes estudos reforçam assim a importância das experiências relacionais com outros significativos, nomeadamente com os pais/cuidadores, nas auto-representações das crianças e adolescentes, bem como a especificidade do papel de diferentes dimensões das auto-representações no seu funcionamento psicossocial, com importantes implicações para a investigação e intervenção.

Palavras-Chave:

Auto-representações; Crianças e adolescentes; Conflito interparental; Mau trato/negligência; Funcionamento Psicossocial

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Abstract

In this project, three issues, still little explored, about children's and adolescents' selfrepresentations were analysed: 1) their association with experiences of exposure to interparental destructive conflict; 2) their construction in the context of child and adolescent maltreatment; and, 3) their associations with children's and adolescents' psychosocial functioning in the context of these adverse family experiences. Two cross-sectional studies were carried out. In the first one, based on the emotional security theory, the mediating role of children's and adolescents' emotional insecurity in the interparental relationship and of their perception about their relationship with both parents in associations between interparental conflict and their domain-specific self-representations was analysed. Both mediational pathways were supported. The second study focused on testing the "Looking-Glass Self Hypothesis" (LGSH), that is, the mediating role of reflected appraisals in associations between significant others' actual appraisals and self-representations, in the context of child/adolescent maltreatment, considering the moderating role of parent-child communication in this process. Findings supported the LGSH in all dimensions evaluated. In each study, the mediating role of self-representations in associations between these adverse family experiences and children's and adolescents' psychosocial functioning was also analysed. Findings emphasized the specific and differentiated role of several selfrepresentation dimensions as intervening mechanisms in those associations. These studies thus reinforce the importance of relational experiences with significant others, namely parents/caregivers, on children's and adolescents' self-representations, and highlight the specific and differentiated role of different self-representation dimensions in their psychosocial functioning, bearing important implications for both research and practice.

Keywords:

Self-representations; Children and Adolescents; Interparental conflict, Child/adolescent maltreatment; Psychosocial functioning

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GENERAL INTRODUCTION

This work focuses on analysing children's and adolescents' self-representations in the context of adverse family experiences, as well as their associations with their psychosocial functioning. We grounded our research in a broad conceptualization of self-representations as cognitive constructs, product of social relationships, with implications for behaviour (e.g., Oyserman, Elmore, & Smith, 2012). Bridging together these three core precepts of self-representations – i.e., cognitive constructs, social products, and predictors of action – the studies developed within this thesis focused on how adverse interpersonal experiences within the family, specifically within the interparental and parent-child relationships, serve as building blocks for the social construction of children's and adolescents' self-representations (i.e., the cognitive component of self-concept).

Indeed, the construction of self-representations is imbued in cultural and social contexts and, more specifically, in significant relational contexts. Although the relevance of significant others has been emphasised by different theories, empirical research about the influence of significant others in the formation of self-representations has neglected the analysis of adverse family experiences, such as interparental conflict and child/adolescent maltreatment parenting practices, as matter for the construction of children's and adolescents' self-representations. By affecting family interactions in a global way, this kind of family experiences can shape children's and adolescents' representational patterns, and, therefore, how their self-representations are formed (Cummings & Davies, 2010; Davies & Cummings, 1994; Toth, Cicchetti, Macfie, & Emde, 1997). In addition, considering the growing body of evidence demonstrating associations of children's self-representations with concurrent and subsequent functioning (e.g., Caldwell, Rudolph, Troop-Gordon, & Kim, 2004; Davis-Kean, Huesmann, Collins, Bates, & Lansford, 2008; Salmivalli & Isaacs, 2005), studying selfrepresentations in the context of adverse family experiences may contribute to increase our understanding of how such experiences may be associated with children's and adolescents' psychosocial functioning.

We developed our research under the perspective of developmental social psychology, by integrating features of the social psychology and developmental psychology approaches to the study of the self. Indeed, overall, the study of the self has been divided in two main theoretical and research traditions. On the one hand, in the developmental

psychology perspective, research on the self has been embedded in the cognitive-developmental theory (e.g., Case, 1992; Fischer, 1980), focused on understanding the structural growth in self-representations, in terms of cognitive ontogenesis, seeking to describe the changing contents of children's and adolescents' self-representations, characteristic of specific developmental phases (e.g., Bennett & Sani, 2004; Damon & Hart, 1988; Keller, Ford, & Meacham, 1978). On the other hand, in the social psychology field, research on the self has been highly influenced by the cognitive approaches to the self, focusing on *self-schemas* (i.e., cognitive self-representations as generalizations about the self in the form of self-descriptive attributes) and on how information about the self is processed and organized in memory (Higgins, 1987; Kihlstrom & Cantor, 1984; Markus, 1977; Markus & Wurf, 1987), without considering developmental issues regarding the contents of self-representations. Also, while in the developmental psychology field, studies have mostly focused on children and adolescents (Harter, 2015), in the social psychology field, research has focused mainly on adults (McConnel, 2011).

Given the increasing agreement about how the study of the self may benefit from a close association between developmental and social psychology (e.g., Bennett & Sani, 2004; Brehm, Kassim, & Gibbons, 1981; Durkin, 1995; Eckes & Trautner, 2000; Flavell & Ross, 1981; Pomerantz & Newman, 2000), in this thesis, we intended to lessen the chasm between these two approaches to the study of self-representations, by bringing together aspects of the different research lines that stemmed from these two psychology disciplines. Specifically, in this work, we integrate the social psychology focus on studying the processes of social influence (e.g., Allport, 1968; McCarthy & Haslam, 1997) and its socio-cognitive approach to the self with the developmental psychology emphasis on age related developmental characteristics of self-representations. We brought the social psychology self-schema operationalization of self-representations, analysing their associations with social experiences in context, under a developmental perspective, that is, considering the developmental characteristics of the population under study. Indeed, important changes in the contents of self-representations take place over the life-course with relevant implications for individuals' psychosocial functioning (Harter, 1990; 2015). Thus, a developmental perspective can greatly enrich the discussion of the social processes related to self-construction.

Under this theoretical umbrella, this research project had three main goals: a) to analyse how interparental conflict is associated with children's and adolescents' domain-

specific self-representations, in a process-oriented way; b) to analyse children's and adolescents' self-representation construction process in the context of child/adolescent maltreatment; and c) to analyse the role of children's and adolescents' domain-specific self-representations in the associations between those adverse family experiences and their psychosocial functioning. These goals were pursued through two cross-sectional studies, which will be briefly described below, in terms of general research problems and objectives.

Considering these main research goals, this dissertation was organized in six chapters. In Chapter I, we provide a broad theoretical framework of the study of the self. With this literature review, we intend to provide an overarching theoretical frame for the research problems addressed in the present thesis. Following a historical perspective on the study of the self, and a brief framing of this research project in a developmental social psychology perspective, we will outline how, despite differences in research traditions and emphasis, self theories converge in conceptualizing self-representations identity as mental constructs, that are shaped by the contexts in which they develop and have implications for behaviour (Oyserman et al., 2012).

After outlining the main research problems and objectives of this research project in Chapter II, we then move to the empirical part of this dissertation, which will be presented in the three following chapters. These chapters describing the empirical evidence of this research project are organized in three main topics: 1) theoretical framework; 2) empirical evidence and 3) discussion. Chapter III describes the first part of the first study. In this study, based on the emotional security theory, the associations between interparental conflict and children's and adolescents' domain-specific self-representations were analysed, considering the mediating role of children's and adolescents' emotional insecurity in the interparental relationship and of their perception about their relationship with both parents in those associations. Indeed, although self-representations were recognized as important potential outcomes in research on the effects of interparental conflict on children and adolescents almost 30 years ago (Grych & Fincham, 1990), since then they have remained neglected in the research literature in this field. Particularly, although a few studies have documented associations between destructive interparental conflict and more negative children's and adolescents' self-representations in general, little is known about the processes that explain those associations, especially considering the multidimensional nature of self-representations. Thus, evidence is needed about the mechanisms that explain how exposure to destructive

interparental conflict is associated with different facets of children's and adolescents' self-representations. In addition, given that interparental conflict is a normal and inevitable phenomenon in marital relationships, which can include any dispute, discord, or expression of any given emotion about matters of the interparental everyday life (e.g., household duties, children's education), it is important to analyse these processes at the community level, that is, in the overall community, and not only in the context of high risk families. Indeed, Cummings and Davies (2010) extend the notion of risky families to include a wide range of community families, arguing that it is important to consider interparental conflict whenever one is concerned about how family contexts may be associated with children's and adolescents' development outcomes (Davies & Cummings, 2006). Therefore, this study was conducted with a community sample of 10-18-year-old children and adolescents.

Chapter IV will, in turn, present the first part of the second study, in which the influence of significant others on maltreated children's and adolescents' self-representations was addressed by testing Cooley's looking-glass self-hypothesis (LGSH), that is, the mediating role of reflected appraisals in associations between significant others' actual appraisals and self-representations, in the context of child/adolescent maltreatment, considering the moderating role of parent-child communication in this process. Indeed, the LGSH has not yet been analysed in maltreating family contexts, although maltreatment experiences may lead to negative representational models of the self, the caregivers and overall interpersonal relationships (Toth et al., 1997). In fact, self-representations have been practically absent from research in the field of child abuse and neglect for the past almost 20 years. In addition, even though research on the LGSH with normative/community samples have supported the association between significant others' reflected appraisals and selfrepresentations (e.g., Martins, 2013; Nurra & Pansu, 2009), results on the association between significant others' actual appraisals and reflected appraisals have been inconclusive (Cook & Douglas, 1998; Shrauger and Shoenemen, 1979). Given that feedback parents give their children about their actual appraisals of them, through parent-child communication, can play an important role in the formation of reflected appraisals, that is, children's and adolescents' representations of their parents' appraisals of them (Cook & Douglas, 1998; Nurra & Pansu, 2009), it is important to analyse parent-child communication as a moderator of the associations between significant others' actual appraisals and reflected appraisals. To that end, parent-child communication measurement tool will be previously adapted and validated in the context of the study's sample.

Despite the theoretical consensus that self-representations have implications for behaviour, and are explanatory factors between context experiences and action, research has yet to assemble a similarly robust body of evidence in support of that assumption. That is, there is a theory-evidence gap regarding robust models of what self-representations do and how they function. Therefore, in both studies, we also intended to address this theoryevidence gap and contribute to increase the body of knowledge regarding self-representations as meaning-making lenses and forces for action. Specifically, we were interested in understanding how different domains of self-representations may differentially function as explaining mechanisms in associations between those experiences and psychosocial functioning, specifically regarding internalizing and externalizing behaviour. Thus, Chapter V will describe the second part of both studies, in which the mediating role of children's and adolescents' domain-specific self-representations in associations between these adverse family experiences (i.e., interparental conflict in Study 1, and maltreatment experiences in Study 2) and children's and adolescents' psychosocial functioning was analysed. In doing so, we go beyond documenting effects of experiences in the social context on selfrepresentations or of self-representations on behaviour, to document how specific experiences are associated to behaviour through their associations with different self-representation domains.

In Chapter VI, we will conclude this work by highlighting the main contributions of this research, with a global reflection about the studies' findings, providing some inputs for future studies in this line of research, and emphasizing several practical implications and suggestions for interventions. Indeed, the ultimate goal of testing the proposed theory-driven models is to identify relevant predictors and mediators of the outcome variables, and to reflect upon how our findings may contribute for informing interventions aimed at changing the identified predictors and mediators, and thus the outcomes, in the desired direction (Buunk & Vugt, 2008). Thus, based on our models results, we will make specific recommendations for interventions with children/adolescents and parents, targeting the factors associated with more negative self-representations and more internalizing and externalizing behaviour.

CHAPTER I

GENERAL THEORETICAL BACKGROUND

I. The Self

"Ever since the man thinks, he thinks about himself" (Santi, 2012, p. 10). This self-reflective capacity of the human being (i.e. the process of knowing of ourselves) has raised interest and discussion in the fields of philosophy, sociology and psychology throughout history. Over the past three decades, the theoretical and methodological advances in these fields have contributed to the recognition that the knowledge that individuals construct about themselves (i.e. the self-concept) has important functions in terms of information processing, construction of meaning, and emotional and behavioural self-regulation (Baumeister, 1998; Baumeister & Bushman, 2014; Brandstädter & Greve, 1994; Harter, 2015; Higgins, 1996; Jacobs, Bleeker, & Constantino, 2003; Leary & Tangney, 2003; Markus & Herzog, 1991; Markus & Wurf, 1987).

According to Baumeister (1998, 1999), selfhood is grounded on three main human experiences: 1) *reflexive consciousness*, which encompasses a broad set of research, including the study of how knowledge about the self is acquired, stored, transformed and used; 2) *interpersonal being*, which refers to the fact that the self is not created nor discovered in isolation, but instead involves connections to others, especially close ones; and 3) *executive function*, which enables the self to make choices, initiate action, and exert control over self and world – the representations that individuals have of themselves allows them to develop goals and regulate their behaviour (Baumeister, 1995; Baumeister & Bushman, 2014; Jacobs et al., 2003; Nurius & Markus, 1990).

When conceived in its broadest sense, self-knowledge includes within its purview representations of affective states, of motivational states, and of action orientations. It contains, for example, representations of both desired and undesired states for the self, as well as specific ideas about how to realize or avoid these future states. Self-knowledge thus serves to frame behaviour, to guide it, and to direct its course. Most importantly, self-knowledge indicates those aspects of behaviour thought to be the most relevant (i.e., self-defining, self-diagnostic, or self-revealing). In constructing a self-concept, not everyone is concerned about the same aspects of his or her behaviour. Individuals are not equally invested in, nor do they feel equally responsible for, all of their actions. One's behavioural repertoire may be quite vast, yet only some aspects will be viewed as self-relevant. Specifying the self-relevant domains is critical because it is in these domains that individuals

will be most attentive to their behaviour, feel responsible for it, and attempt to regulate it (Markus, 1983; Baumeister & Bushman, 2014; Jacobs et al., 2003; Nurius & Markus, 1990).

Although people are highly motivated to gain self-knowledge, their motivation differs across different kinds of information about the self. Social psychology has identified three main motives that guide individuals' search for self-knowledge: 1) the appraisal accuracy motive, by which people seek accurate information about their traits or attributes; 2) the consistency motive, that is the quest for information that confirms what they already believe to be true about themselves, in order to maintain some constancy among the several representations of themselves; and 3) the self-enhancement motive, which entails the desire and quest for favourable information about the self as well as attempts to reject or revise previous unfavourable views of the self (Baumeister, 1999; Brown, 1998).

It is easier to enumerate the several functions and motives underlying self-knowledge than to define the concept. Anglo-Saxon literature has grouped the several studies about self-knowledge in the overarching concept 'the self'. However, the way self-knowledge has been studied includes a large diversity of concepts with 'self' as a prefix (e.g., self-concept; self-esteem; self-image; self-efficacy). Despite that diversity of designations, there is a global definition that allows the delimitation of the concept of self from the concepts with 'self' as a prefix. According to James (1890, 1892), the self includes the totality of individuality and includes two aspects – o *I self* (the aspect of the self that is continuously perceiving, thinking and seeing) and the *Me self* (the aspect of the self which is object of one's attention, thoughts or perception). Similarly, Linville and Carlston (1994) refer to the notion of 'knower self' as a "procedural knowledge that directs our actions, thoughts and feelings" and to the notion of a 'known self' as "the declarative knowledge we have about ourselves" (p. 31), stating that the later corresponds to self-concept.

According to James (1890), the *Me self* is composed of three main elements: the constituents, the feelings and emotions that those constituents elicit; and the action triggered by them. It is still generally recognized that self-knowledge includes a cognitive, an emotional and a behavioural component (Baumeister, 1999). The cognitive component refers to the contents, and is often designated by self-concept, while the evaluative and affective/emotional aspects refer to the self-esteem (e.g., Baumeister, 1995; Byrne, 1996; Brown, 1998; Harter, 2003, 2015; Wylie, 1974). The behavioural or executive component refers to the regulation of behaviour, that is, to the management of the *I self*, in physical,

relational and emotional terms (e.g., Baumeister, 1998).

Therefore, self-concept can be defined as the conception and evaluation of the self, including the various facets of individual reality, namely, body image, traits, values, interests, abilities, goals, social roles, group membership, personal worth, and strategies for regulating and controlling behaviour (Corsini, 1999; Markus, 1983). It is composed of conscious and unconscious representations that became more integrated and organized in higher order selfrepresentations throughout life, and in a variety of realistic, desired, ideal, past, present and future self-conceptualizations (Horowitz, 2000). It is thus a multifaceted phenomenon, including a collection of images, schemas, conceptions, prototypes, theories, goals, or tasks (Carver & Scheier, 1985; Epstein, 1980; Greenwald, 1981; Greenwald & Pratkanis, 1984; Kihlstrom & Cantor, 1984; Markus, 1983; Markus & Sentis, 1982; Markus & Wurf, 1987; Rogers, 1981; Schlenker, 1985). It is, therefore, a construct that includes a large set of knowledge, of which only a small part is conscious at any given time. The conscious part may tent to resemble a self-concept in that it is largely coherent and integrated. However, the whole set of information about the self may contain gaps, contradictions, inconsistencies and a lot of disconnected information. Trying to integrate all that knowledge into a single concept - self-concept - poses serious operationalization difficulties, as most theorists have come to notice (Baumeister, 1999).

In such expanded views of self-knowledge, the primary concern will be with information about the self that is available to consciousness or to working memory and that can be expressed symbolically. This view does not deny the importance of unconscious information processes, or the behavioural effects of uncommunicated needs or desires. Nor does it ignore the influence of a diversity of social structural factors in producing behaviour. Rather, it suggests that substantial progress in understanding the personality/behaviour relation can be made by focusing on overt or manifest self-knowledge. Self-knowledge that can be abstracted, symbolized, and articulated is particularly significant because it can be communicated to others and thus represents those aspects of self that are likely to have the most impact on social behaviour (Markus, 1983).

Given that, in the present thesis, we focus on the cognitive component of self-concept, a more appropriate unit of analysis may be the self-schema (or self-representation), a term proposed by Markus (1977) to designate an individual piece of information or a specific belief about the self. According to this author, the efforts to organize and explain one's own

behaviour result in the formation of cognitive structures about the self, i.e. self-schemas/self-representations — that are "cognitive generalizations about the self, derived from past experience, that organize and guide the processing of the self-related information contained in an individual's social experience" (Markus, 1977, p.1).

1. Changing conceptualizations of the self throughout history

Perspectives and conceptualizations of the self have shifted throughout history, from ancient philosophers' thinking to the work of contemporary academics and scientists. In the academic field, the study of the self has been marked by multiple definitions, theoretical perspectives, and methodologies. It has included varied topics, such as self-concept, selfesteem, self-representation, self-efficacy, among others (Harter, 2015). Thus, the differences between the several approaches to the study of the self and between the various definitions are reflected on the different aspects analysed and, therefore, on the how the constructs are operationalized. In addition, research on the self has not occurred within one specific discipline of psychology, but instead in several psychology fields - namely in clinical, developmental, educational and social psychology - and in other social sciences disciplines, such as Sociology (Brinthaupt & Lipka, 1992; Gecas, 1982; Greenwald & Pratkanis, 1984; Rosenberg, 1979; Yardley & Honess, 1987). Given this diversity of perspectives, it is quite unanimous among several authors that, more important than reaching a consensual definition, an explanation of the operationalization that was considered in the studies conducted is essential (Ashmore & Jussim, 1997; Brinthaupt & Lipka, 1992; Leary & Tangney, 2003). Thus, a brief presentation of the main theoretical perspectives on the self, in a historic perspective, is pertinent at this point in order to provide an overview of how the study of the self has evolved from its roots to a contemporary perspective.

1.1. From introspection to cognitions

Since the period of *romanticism*, the shifting philosophical conceptualizations of the self were paralleled by the trends the academic discipline of psychology that emerged at the end of the 19th century. During the *romanticism* period (18th and 19th century), the psychological, unobservable, characteristics of the self became increasingly highlighted (e.g., creative inspiration, spirituality, passion, the soul). In the remnant of this era, during the early phase of introspection, there was a flourishment of legitimate inquiries into topics concerning

the self. The first psychological approach of the self was made by William James (1890, 1892) with his introduction of the distinction between the *I-self* - identified as the knower - and the *Me-self* - the object of one's knowledge, as well as the contention that the individual creates multiple Me-selves, paralleling one's different social roles, which is the grounding principle of the multidimensional and dynamic perspective of the self. James's pioneer work is still recognized in virtually all contemporary approaches to the study of the self.

In the 20th century, with the onset of the *modernism* period, this perspective became incompatible with the emerging values of reason, objective evidence and rationality, which led to a reconceptualization of the self, where rationality and reason became the essence of humanity. The self was forced to be seen as a material reality (Norman, 2006) that obeyed the laws of science and became self-directing, consistent over situations and time, coherent in its organization, stable, principled, and authentic (see Gergen, 1991; Vitz, 2006). In this period, the study of the self was made of conscious and intelligent inferences about behaviour's attributes and strengths that were observable. Radical behaviourism emerged in this setting and imposed a focus on observable behaviour that could be directly measured. In this context, James' subjective, mental constructs were removed from the scientific spotlight. Cognitions in general, including self-descriptions, were considered unmeasurable since they could not be operationalized as observable behaviours. Self-report measures designed to tap selfconstructs were not included in the behaviourists methodologies because people were assumed to be inaccurate judges of their own behaviour. Even those more accepting of the introspective methodology did not endorse the existing self-concept measures because their content was considered overly vague and general. In addition, self-constructs were not welcome in behaviourism because their functions were not clearly specified.

Around 1950, with the cognitive revolution in Psychology, there was a resurgence of the interest in cognitive processes. This shift in emphasis brought back the scientific interest in self-constructs, and with it, changes in the study of the self, both theoretical and methodological (e.g., Markus & Wurf, 1987). As the cognitive revolution took place, it was assumed that, to better understand human behaviour, it was necessary to consider the cognitive processes mediating the relation between stimuluses and response (Kihlstrom & Hastie, 1997). Thus, Piagetian and neo-Piagetian models became the vanguard of the study of the self. Experimental and social psychologists favoured cognitive models. In this process, the self was resurrected as a cognitive construction, as mental representations that constitute a

theory of the self (e.g., Epstein, 1973, 1981; Fisher, 1980; Markus, 1977, 1980). Cognitive theories of the self represented the new zeitgeist in an evolving application of modernistic scientific theory and paradigms, leading to significant changes in the study of the content and structure of self-concept, with the application of information processing models and the conceptualization of self-concept as a mental representation, organized in memory as a knowledge structure (e.g., Greenwald, 1981; Greenwald & Pratkanis, 1984; Higgins & Bargh, 1987; Kihlstrom & Cantor, 1984; Klein & Loftus, 1993; Markus, 1980; Markus & Sentis, 1982; Markus & Wurf, 1987; Rogers, 1981; Rogers, Kuiper, & Kirker, 1977; Strauman & Higgins, 1993; Turner & Onorato, 1999). Self-representations (i.e., attributes of the self, described by the person) began to gain increasing legitimacy, as clinicians, including behaviourists, were forced to acknowledge that the spontaneous self-evaluative statements of their clients seemed powerfully implicated in their pathology (Harter, 2015).

1.2. From a one-dimensional to a multidimensional conceptualization

Many scholars placed a major emphasis on the integrated, unified self (Allport, 1961; Horney, 1950; Jung, 1928; Lecky, 1945; Maslow, 1954; Rogers, 1951). For Allport, the self includes all aspects of personality that make for a sense of inward unity. Lecky (1945) shaped an entire theory around the theme of self-consistency, emphasizing how behaviour expresses the effort to maintain the integrity and unity of the self. Epstein (1973, 1981) has argued that internal consistency is among the criteria that one's self-theory must meet. Thus, one's self-theory will be threatened by evidence inconsistent with the portrait one has constructed of the self, or by postulates within the theory that appear to be contradictory. Epstein (1981) formalized these observations under the rubric of the "unity principle", emphasizing that one of the most basic needs of the individual is to maintain the unity and coherence of the conceptual system that defines the self.

With the advent of *postmodernism*, truths became relative (Vitz, 2006) and the values of objective reality and scientific reasoning were overruled by the highlight of the limitations of reason and science as erroneous and misleading quests. The maxims of pluralism, contextualism, and the multiplicity of perspectives set the ground to a shift of the conceptualization of the self to a socially, and rather tangled, constructed self. As psychologists realized that people naturally took themselves as objects of self-reflection, James' distinction between the I-self (as knower) and the Me-self (as known), and especially

his characterization of multiple Me-selves regained interest. With the realization that the self varied across situations and relational contexts, this multiplicity began to represent the reality of self-development (Harter, 2015).

This led to a series of concerns about this postmodern self and the doubts regarding multiplicity, stability, coherence, and authenticity and to postmodern theorists to question whether the self could function as a compass to individuals' choices and behaviour (Harter, 2015). Criticism to the unidimensional conceptualization of the self began to arise, in face of the notion that an undifferentiated structure could not sensitively mediate and reflect the diversity of behaviour to which it was supposedly related. Thus, the field began to shift toward an increasing enthusiasm for models describing how the self varied across situations and relational contexts (see Ashmore & Ogilvie, 1992; Gergen, 1991; Kihlstrom, 1993; Markus & Cross, 1990). This marked an important transition in the study of the self, not only at the theoretical level, with the shift from one-dimensional models to multidimensional models, but also at the methodological level, with the use of confirmatory factor analyses, structural equation models and multi-trace/multi-method analyses.

In the educational psychology field, the transition to the multidimensional approach was marked by the hierarchical model proposed by Shavelson et al. (1976), subsequently developed by Marsh (Marsh, Byrne & Shavelson, 1988; Marsh, Craven, & Martin, 2006; Marsh & Shavelson, 1985; Shavelson & Marsh, 1986; Marsh & Hattie, 1996). This research group argued that the study of how the self-relates to other variables should be based upon the theoretical formulation of the domains of self-concept. In their model, self-concept was conceived as a multidimensional and hierarchical construct, in which overall self-concept, assumed as the most stable component of self-concept, was divided in academic and non-academic self-concept. From here on, the importance given to the psychometric qualities of instruments developed based on a strong theoretical model became a central aspect of research in this field.

In the developmental psychology field, based on the James' (1892) initial propositions, Harter also proposed a multidimensional model of self-concept (Harter, 1982, 1989, 1999, 2003), focused on the perception of competence (Harter, 1985, 1988, 1990, 1993, 1998, 1999). James (1892) emphasized the need to consider individuals' perceptions of success and failure regarding their aspirations, arguing that this association predicted global self-esteem. According to this perspective, failure in a domain considered by the individual as

little important would have a weak effect on his/her global self-esteem. In her operationalization of James' model, Harter (1985, 1988, 1990, 1993, 1998, 1999) proposed that self-esteem would result from the discrepancy between individuals perceived competence in several domains and the relevance attributed to those domains. In several studies with different age groups, she found that the competence domains deemed as most relevant for the individual were more strongly correlated with overall self-esteem than the domains rated as less important (Harter, 1985, 1986, 1990, 1993). Thus, the measure developed by her team – the Self-Perception Profile (SPP; Harter, 1982, 1985) – includes individuals' perceptions of competence in a set of relevant domains, as well as a relevance scale regarding those domains and a global self-esteem measure.

The critics to one-dimensional models also arose in the social psychology field, particularly regarding the role attributed to self-esteem as a predictor. More concretely, research on the self was criticized because of its focus on trying to relate the broad range of complex human behaviour to a single aspect of self-knowledge: self-esteem (Markus & Wurf, 1987; Swann, Chang-Schneider, & McClarty, 2007). Another obstacle to the understanding of the link between self-concept and behaviour regulation was a conceptualization of self-concept as stable, global, or as an average of the individuals' self-representations (Markus & Wurf, 1987). The solution has been to view the self as a multifaceted phenomenon, as a set of images, schemas, conceptions, prototypes, theories, goals, or tasks (Markus & Wurf, 1987; Greenwald & Pratkanis, 1984; Kihlstrom & Cantor, 1984).

1.3. Contemporary conceptualization

Undeniably, the experience of a stable sense of self is one of the defining characteristics of human beings (Oyserman, 2001; Oyserman et al., 2012). Individuals seek to know themselves and keep a sense of themselves as a unique entity with consistent and durable characteristics (Bem & Allen, 1974). Therefore, although most contemporary theorists acknowledge that the multiplicity of selves is a reality, they also contend that the individual has the capacity to retain a vital sense of continuity across the lifespan, making meaning of a history of personal experiences that allow him/her to retain a core sense of identity that includes authenticity, without serious threat to one's core being (Martin & Sugarman, 2000; Vitz, 2006).

Therefore, in the most recent theories and contemporary research, the self-concept is conceptualized as a multidimensional and dynamic system, in which the information about the self is organized in a set of multiple domain-specific self-representations having a key role in information processing (Epstein, 1973; Harter, 1996; Hattie, 1992; Marsh & Hattie, 1996; Oosterwegel & Oppenheimer, 1993, 2002; Oppenheimer, 1995; Shavelson et al., 1976; Turner & Onorato, 1999). Self-concept is thus conceived not as an overall representation, but instead as the differentiation and integration of multiple specific self-representations (Markus & Wurf, 1987; Oosterwegel & Oppenheimer, 2002). In this sense, self-concept is conceived as both stable and malleable (Markus & Kunda, 1986). Self-representations are related to different social contexts and include present, past, ideal and future representations which are progressively incorporated in self-concept as development unrolls. They are organized in the cognitive system as individuals reflect on their experiences (Epstein, 1990; Oosterwegel, Field, Field, & Anderson, 2001). The advances in cognitive psychology have facilitated the conceptualization of several characteristics of the self, such as the multiplicity and diversity of their expressions and the apparent paradox of its simultaneous stability and malleability. Overall, theories converge in assuming that the self comes from somewhere, is stored in memory, and matters (i.e., has implications). That is, self-concept is shaped by the contexts in which it develops, and influences action (Oyserman et al., 2012). Specifically, selfrepresentations, viewed as mental constructs, social products, and forces for action, will be further discussed in the following sections.

2. Developmental Social Psychology as a theoretical umbrella for the study of selfconstruction

From this excursion through the historic evolution of the study of the self, two parallel global perspectives stand out: social and developmental psychology. These two disciplines have examined self-representations, adopting cognitive views of the self. However, despite their similarity in terms of this substantive interest, there have been considerable differences between the two approaches in terms of both theoretical orientation (i.e., definition and operationalization of the concepts) and methods, which have led to quite contrasting research traditions. On the one hand, in the development psychology field, although the self has been conceived in cognitive terms, it has been traditionally associated with the notion of personal competence (Bong & Skaalvik, 2003; Skaalvik & Bong, 2003; Harter, 2015), and self-

representations have been operationalized as global appraisals regarding specific abilities. In addition, in a developmental perspective, the study of the self has been embedded in the cognitive-developmental theory, specifically Piagetian and neo-Piagetian theory (e.g., Case, 1992; Fischer, 1980). This theory posits that individuals' overall cognitive or conceptual development is a key determinant of the emergence, differentiation and integration of the relevant self-representation dimensions. These progressive modifications reflect the process of increasing cognitive maturity and social integration in different relational contexts (e.g., Harter, 1990). Accordingly, cognitive-developmental researchers have typically focused on understanding age-related structural growth in self-representations in terms of cognitive ontogenesis, seeking to describe the changing contents of children's self-representations (e.g., Bennett & Sani, 2004; Damon & Hart, 1988; Keller et al., 1978).

On the other hand, within the social psychology field, research on the self has been embedded in a completely different tradition. Specifically, it has been highly influenced by cognitive approaches to the self, focusing on self-schemas (i.e., cognitive self-representations as generalizations about the self in the form of self-descriptive attributes) and on how information about the self is processed and organized in memory (Higgins, 1987; Kihlstrom & Cantor, 1984; Markus, 1977; Markus & Wurf, 1987). Regarding definition, in this perspective, self-concept is conceived as a contextualized, dynamic and interpretative cognitive structure which provides and important conceptual framework for explaining a broad set of processes and behaviours (Baumeister, 1998; Brandstädter, & Greve, 1994; Higgins, 1996; Markus & Herzog, 1991; Markus & Wurf, 1987; Orbach, Mikulincer, Stein, & Cohen, 1998). It is assumed that self-concept is composed of multiple self-representations, including not only the present, past and future self-representations, but the ideal and ought self-representations as well. As for the focus of the studies, social psychology research tradition on the self has placed a greater emphasis on the processes, such as the way individuals organize self-knowledge and its implications at the level of emotional and behavioural regulation, and on information processing. Thus, in this research tradition, developmental issues and the self-representation contents have not been analysed.

Another key difference has been the age group typically studied in both lines of research. While in the developmental psychology field, studies have mostly focused on children and adolescents (e.g., Harter, 2015), in the social psychology field, research has focused mainly on adults (e.g., McConnel, 2011). However, as mentioned earlier, it has been

shown that important changes in the contents of self-representations take place over the life-course with relevant implications for individuals' psychosocial functioning (Harter, 1990; 2015). Thus, to fully understand the self and its functioning, it is important to consider the contents of self-representations that are characteristic of the different developmental stages.

Therefore, a thorough approach to the construction of the self requires a reference to both social and developmental psychology fields. The differences identified thus far reflect to some extent differences in the disciplines orientation. In general, while social psychologists are more interested in studying processes of social influence (e.g., Allport, 1968; McCarthy & Haslam, 1997), developmental psychologists study age related developmental differences and change over time. However, both orientations could potentially complement each other (Durkin, 1995). Indeed, it has been argued that the study of the self may benefit from a close association between developmental and social psychology (e.g., Bennett & Sani, 2004; Brehm et al., 1981; Durkin, 1995; Eckes & Trautner, 2000; Flavell & Ross, 1981; Pomerantz & Newman, 2000).

Given the many shared themes in their object of study, it is easily understandable that both disciplines could benefit from one another's perspective. Namely, Pomerantz and Newman (2000) claimed that a developmental psychology approach could enhance social psychology research by providing new perspectives on process-related issues. For instance, a developmental perspective can help understand individual differences. They noted that the replication of social psychology research on samples with children/adolescents could provide additional support, and thus robustness, to previous findings and theories (Bennet & Sani, 2004; Durkin, 1995). Likewise, the importance that social psychology assigns to social contexts and individuals' actions upon those contexts (Doise, 1996) is essential to the understanding of developmental processes. Indeed, over the past decades, important contributions have integrated social and developmental perspectives in psychology (e.g., Collins & Gunnar, 1990; Doise, 1996; Goodnow & Collins, 1990; Hartup, 1991; Higgins, Ruble, & Hartup, 1983; Moscovici, 1990; Ruble & Goodnow, 1998; Taylor, 1998; Baltes & Staudinger, 1996; Carpendale & Müller, 2004; Durkin, 1995; Mercer, 1995; Perret-Clermont, Carugati, & Oates, 2004; Resnick, Levine, & Teasley, 1991; Rogoff, 1998; Wegerif, Mercer, & Dawes, 1999) and retraced the historical and theoretical evolution of this integration (see Valsiner, 1998; Valsiner & Van der Veer, 2000).

According to Zittoun and Perret-Clermont (2009), in psychological models that are

both social and developmental, binary understandings of psychological phenomena – that is, representing only the relationship between the person and the object – are avoided, giving room to ternary models, which include the person, the object, and the social world. In their attempt to help answer the questions: "How can social psychologists account for changes that people undergo through their interaction with others and their world? And how can developmental psychologists, interested in the genesis of new forms of understanding, take account of the social world in which people live?" (Zittoun & Perret-Clermont, 2009, p. 387), these authors proposed that, social psychology of development must consider the social interactions in which development takes place. In this perspective, development occurs within a psychosocial *triangle*, composed of two persons interacting on an object (e.g., Schubauer-Leoni & Perret-Clermont, 1997; Schubauer-Leoni, Perret-Clermont, & Grossen 1992). Instead of viewing development as the progressive construction of cognitive structures, this paradigm suggests that, under certain circumstances, a social interaction can promote a restructuring of the persons' understanding, and therefore can result in a cognitive development (Zittoun & Perret-Clermont, 2009).

The psychosocial triangle does not occur in a void. Two persons interacting on an object are usually themselves located in certain social situations or in a specific sociocultural-frame. When interacting with each other, in a specific setting, people draw on rules that constitute the socio-cultural frame. In each social situation, people will draw on the available cues in the process of giving meaning to the situation or interaction (Bruner, 1996; Rommetveit, 1978). Most relevant for the development of children and adolescents are the triangular interactions that happen within settings that are framed by the customs and rules of the family. These rules can be implicit and explicit, creating responsibilities and mutual expectations. As a social frame, the family is a pre-constrained field of possible interactions, positions, and actions, with consequences for the individuals' development. In sum, the notion of frame allows an analysis of socially situated interactions. Social developmental psychology, as well as sociocultural approaches, assumes that intra-psychological processes are constructed through interpersonal/social dynamics (Valsiner 2000; Vygotsky & Luria, 1994). People's transition across situations requires the re-use and reconstruction of previous knowledge. Trying to comprehend one's position in another relational network or situation requires the mobilization of that previous knowledge as well as the acquisition of new knowledge. This can lead to a redefinition of previous knowledge. Therefore, people's

successive transitions across frames (i.e., social contexts), and consequent potential transformations of their current knowledge, require them to engage in processes of making personal sense of those changes. The elaboration of those changes into personal sense provides the person with an orientation system and a sense of continuity within transitions (Zittoun & Perret-Clermont, 2009).

In sum, psychological development can be viewed as involving socially framed, interpersonally negotiated and culturally mediated processes, as well as dynamic relations between the person, others and objects, which are reconfigured through transitions. However, the increasing attention given to the complex nature of the social in development has often brought researchers to forget intra-psychological dynamics. But intra-psychological dynamics, such as cognitive self-representations, are fundamental components of development, and should be studied together with interpersonal and social interactions (Zittoun & Perret-Clermont, 2009).

3. The Self as socio-cognitive construction

The journey through the several shifts of conceptualizations of the self throughout history, particularly since the establishment of Psychology as a scientific discipline, also allowed a lookout at the origins of the fundamental notions of the self as both a cognitive and social construction. Both cognitive and social factors have received consistent support, from research in this field, as antecedents that contribute to the construction of self.

The cognitive construction of the self is unavoidable. Those socio-cognitive theorists who have studied adults' self-representations (e.g., Epstein, 1991; Greenwald, 1980; G. A. Kelly, 1955; Leary & Tangney, 2003; Markus, 1980; Sarbin, 1962) have been vehement in their contention that people actively create theories of the self in order to make meaning of their experiences. In socio-cognitive theory, the cognitive construction of self-representations occurs through cognitive processing of information about the self conveyed by modelling, differential social evaluative reactions, and direct guidance in interpersonal transactions within the several social subsystems, such as familial, educational, peer, mass media, and occupational (Bandura & Bussey, 2004).

Concurrently, in cognitive-developmental theory, deeply engrained in Piagetian tradition, the normative-developmental changes in cognitive processes are the main determinants of changes in the structure and organization of the self. The cognitive

developmental theorists (e.g., Case, 1992; Fisher, 1980) thus focused on the changing cognitive structures that determine children's construction of that self-theory, at different periods of development. In this perspective, the changing characteristics of the I-self in each development stage directly impact the set of self-representations (i.e., the Me-self), which thus emerge as a function of the natural biopsychosocial development (e.g., Harter, 2006b, 2015; Martin et al., 2002; Montemayor & Eisen, 1977).

At the same time, the self is also undoubtedly a social construction. As recognized by Markus (1990), the other or others have a critical role in producing and maintaining self-representations, which are thus in large measure interpersonal achievements. To be sure, the cognitive generalizations about the self often involve the self-relevant responses of other people (Markus & Wurf, 1987). Thus, self-schemas develop around those aspects of the self that become personally significant during our social interactions and they reflect domains of enduring salience, investment, or concern (Markus, 1983). As such, the self is inextricably relational, and hence, to understand it, the relationship context in which the self exists must be considered (Carmichael, Tsai, Smith, Capraiello, & Reis, 2007). This second class of antecedents – namely, socialization experiences - are more likely than cognitive development to impact the valence of self-attributes, resulting in both positive and negative representations (Harter, 2015).

The social nature of the self was emphasized by the symbolic interactionists (Cooley, 1902; Mead, 1934), who viewed the self as constructed within social interactions, through linguistic exchanges (i.e., symbolic interactions). Several elements from the symbolic interactionism theory are still present in the contemporary study of the self. Of paramount importance is the role of others' appraisals in shaping individuals' self-representations. To Cooley (1902), the reflected appraisals of specific others (i.e., individuals' appraisals of how specific others appraise them) are internalized in the form of a looking-glass self. Mead (1934) expanded this view conveying a preponderant role to the general social environment and asserting that a more generalized sense of self is shaped by the individuals' overall social experiences.

In addition to the symbolic interactionists, object relation theorists, including Bowlby (1969), Sullivan (1953) and Kohut (1977) have generally defended as a foundational principle that interpersonal experiences are central to the formation and development of the self. Moreover, even though the development of all self-representations is assumed to

implicate others, it is quite likely that some of them are more directly tied to the important people in one's life (Cooley, 1902; Markus, 1990). Contingent responding from those in the individual's social environment, particularly the early caregivers, may be a key to the development of viable self-schemas (e.g., Bowlby, 1969).

In sum, the growth of self-structures is determined by both the information the person receives about the self in the social context - through social interactions with general and significant others, social-perception, social comparison, and reflected appraisals (Cooley, 1902; Mead, 1934; Bowlby, 1069) - and by the individual's ability to cognitively process self-representations (Markus & Wurf, 1987).

3.1. Self as a cognitive construction

A substantial amount of information processed by the individual is information about the self, and a variety of cognitive structures are necessarily involved in processing this information (Markus, 1977). In both social cognitive theory and cognitive-developmental theory - part of which is rooted in schema theory -, the construction of self-representations involves a process of increasing abstraction. Both theories assume that children come equipped with capabilities to discriminate, generalize, and categorize events, grounding on a continuity model of information processing in which the application of cognitive operations to new information changes the state of self-knowledge. The processes by which selfknowledge is socially constructed is also much the same in both theories. Both draw on the same basic information-processing principles, on how abstractions are formed, and on how structured knowledge affects attentional, organizational, and memorial processes. However, while the role of cognitive determinants in the construction of self-representations is central to both theories, the nature, scope, and function of those cognitive factors are differentially posited by each theory. In social cognitive theory, self-representations are built through cognitive processing of information about the self, conveyed by individuals' unfolding life experiences in their overall social context. In a cognitive-developmental perspective, selfrepresentations emerge naturally as a function of the normal course of cognitive development (Bandura & Bussey, 2004; Harter, 1990, 2015; Martin, Ruble, & Szkrybalo, 2002). Next, we will review briefly how the two theories have approached the cognitive construction of selfrepresentations.

3.1.1. Content and Structure of self-representations

People extract structured knowledge about themselves from their unfolding life experiences. As they do so, they gain an impressive knowledge base about their abilities, their preferences, their hopes and fears. Such self-construction is not built by indiscriminate information; rather it is selective and creative (Markus, 1990). Individuals' attempts to organize, condense, or explain their behaviour in a particular domain will result in the formation of cognitive structures about the self, which he termed self-schemas, defining them as "cognitive generalizations about the self" (Markus, 1977, p. 1), that is, knowledge structures about the self that derive from past experience, including specific events and situations involving the individual as well as more general representations derived from the repeated categorization and subsequent evaluation of the person's behaviour by himself and by others around him.

In socio-cognitive research on the self, contemporary models focused on the nature of cognitive representations of the self and characterize self-concept as a system of self-schemas or generalizations about the self, derived from past social experiences (Markus & Wurf, 1987). To the extent that self-schemas are constructed as individuals process information about their experiences, they reflect the consistencies that people have perceived in their own social behaviour, and represent the way the self has been differentiated and articulated in memory. More concretely, the patterns of behaviour that have been observed repeatedly generate a framework that allows the individual to quickly simplify and interpret complex sequences of events. By summarizing and explaining behaviour in a certain dimension, self-schemas organize and guide the processing of the relevant information about the self. Given that individuals exhibit some regularity in their behaviour, such frameworks — i.e., self-schemas — are very useful, since they help individuals understand their intentions and feelings, and identify likely or appropriate patterns of behaviour (Markus, 1977, 1983).

As individuals accumulate repeated experiences of a certain type, their self-schemas become increasingly resistant to inconsistent or contradictory information, although they are never totally invulnerable to it. Once established, the influence of these self-schemas is pervasive. They function as selective mechanisms, determining what information is attended to in one's self and others, how much importance is attached to it, and what happens to it afterwards. Therefore, self-schemas serve an important processing function and allow individuals to go beyond the information currently available. The content and organization of

information about the self can be an important predictor of future behaviour (Markus, 1977, 1983, 1990).

Different lines of research have suggested that appreciating self-concept structure was important for quite some time. For example, the self-reference effect (e.g., Bower & Gilligan, 1979; Rogers et al., 1977) demonstrates that people are better at recalling a list of trait adjectives if they, while encoding them, considered whether each word is self-descriptive in comparison to considering whether each word is descriptive of a less familiar person. The explanation for this is that there is a considerable amount of self-knowledge that is organized in memory in an elaborative way, and the extensiveness of this memory structure aids in recall (Greenwald & Banaji, 1989). This work suggests that the self is comprised of a relatively large amount of information within a substantial cognitive structure (e.g., many associative links) (McConnel & Strain, 2007).

This assumption has been supported by several pieces of evidence. First, people are quite capable of describing themselves when asked to do so (Linville, 1985; Markus & Wurf, 1987), indicating that such information is readily available. Furthermore, we know that some attributes are especially accessible and are used frequently to describe one's own and others' behaviour. For example, Markus (1977) noted that people can be schematic on self-relevant attributes (honesty), leading them to be especially fast to report possessing these attributes and to have better memory for the presence of these attributes in others and in the self as well. This information processing advantage for schematic information results from the frequent use and activation of these attributes, resulting in heightened accessibility in memory. It also seems likely that these highly accessible attributes are not isolated in memory, but instead, are part of very integrative knowledge structures. In addition, given that people expect greater consistency for the self than they do for others, they form especially integrative and elaborative self-concepts (McConnell, Rydell, & Leibold, 2002).

Some of the most advanced theoretical work on self-concept has concluded that it becomes increasingly represented by traits, instead of specific episodic events, as more information about the self is encountered (e.g., Klein, Loftus, Trafton, & Fuhrman, 1992; Klein, Sherman, & Loftus, 1996; McConnel, 2011). Specifically, these researchers have found support for the idea that although self-knowledge is initially exemplar based (i.e., composed of specific behavioural episodes), it becomes increasingly abstracted into trait summaries as people develop greater experience with a behavioural domain (e.g., Kihlstrom

& Klein, 1994; Klein, Chan, & Loftus, 1999; Klein et al., 1992; Klein et al., 1996). Thus, trait summaries become the primary unit of self-knowledge.

Although it is consensual that self-relevant attributes are often composed of traits, especially after the accumulation of a considerable number of behavioural exemplars and especially in cultures that promote independent self-construals (Markus & Kitayama, 1991) or entity theories of personality (Dweck, 1999), it has been also increasingly acknowledged that other forms of self-relevant knowledge may also be incorporated. For instance, it has been found that people spontaneously use a wide variety of attributes (e.g., physical appearance, emotions, and behaviours) in describing themselves in addition to personality traits, and this broader array of attributes provides additional utility predicting people's responses to stressful life events. In short, a contemporary perspective on self-knowledge organization and structure, while agreeing that exemplars (e.g., events, behaviours) are at the base of self-knowledge, and that over time the accumulation of exemplars results in more abstract forms of self-knowledge, proposes that abstracted information about the self extends beyond just traits. Therefore, assessing self-concept with a broader constellation of attributes captures meaningful variability in predicting human behaviour (McConnel, 2011).

In sum, it seems that self-concepts are highly organized memory structures featuring critical attributes that, because of their exceptional accessibility, serve to guide the interpretations of behaviours and characteristics of one's self and of others (McConnel & Strain, 2007). These descriptive attributes can include traits (e.g., shy), behaviours (e.g., philanthropic), physical characteristics (e.g., attractive), and affect (e.g., proud), among others. Attributes can be quite idiosyncratic and derived from numerous sources, including culturally transmitted knowledge (e.g., Geertz, 1973; Shweder et al., 1998), feedback provided by others (e.g., Cook & Douglas, 1998; Mead, 1934), inferences drawn from one's own behaviour (e.g., Bem, 1967; Fazio, 1987), experiences moving through one's environment (e.g., Neisser, 1991, 1993), and physically experienced or simulated bodily states (e.g., Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005; Wilson, 2002). Attributes are the products of several exemplars (e.g., personally experienced events, behavioural episodes). In addition, a given exemplar can influence multiple attributes, and it may take many exemplars to produce an attribute (McConnel, 2011).

3.1.2. Cognitive-developmental aspects of self-representations

As mentioned previously, a cognitive-developmental analysis of the construction of the self focuses on the successive changes in the structure of the self as a system, namely, how self-representations are conceptually organized, throughout different developmental periods (Montemayor & Eisen, 1977; Harter, 1990, 2003, 2006b, 2015). A focus on normative-developmental changes allows an understanding of how cognitive development impacts two general characteristics of the self-structure, namely, the level of differentiation and the integration that the individual is able to achieve and which sustain their selfrepresentations. Differentiation refers to the emerging cognitive abilities that allow the individual to build self-representations that vary across various domains of experience. The evolving cognitive capacities allow the older child to distinguish between real and ideal selfconcepts, which can then be compared to one another, creating discrepancies that have further consequences for the self. During adolescence, newfound cognitive abilities support the creation of multiple selves in different relational contexts. As for integration, cognitive abilities that emerge across the course of development allow the individual to construct higher-order generalizations about the self in the form of trait labels (e.g., demonstrated skills in math, science, and language arts are subsumed under the self-concept of 'smart'). Further cognitive advances in adolescence allow one to successfully integrate seemingly contradictory self-attributes (e.g., cheerful and depressed) into meaningful abstractions about the self (e.g., moody) (Harter, 2015).

A large body of evidence (see reviews by Damon & Hart, 1988; Harter, 1983, 1988, 2006b, 2015; Rosenberg, 1979, 1986) indicates that the nature of self-representations shifts from concrete descriptions of one's behavioural and social exterior to more abstract descriptions of one's psychological interior as development naturally unrolls. These changes in the nature of self-representations are intimately related to the development of cognitive abilities across childhood and adolescence. Piaget's (1960, 1963) stages provide a framework for conceptualizing these changes. In this process, self-representations are constrained by the several cognitive limitations identified in Piagetian (e.g., 1960) and neo-Piagetian formulations. Given that the studies presented in this dissertation were developed with children and adolescents between middle to late childhood and middle adolescence (i.e., 8 to 16 years old), it is pertinent at this point to briefly review the main developmental characteristics of the nature of self-representations across the several developmental levels

from childhood to adolescence.

Early to middle childhood. During the preoperational period, the young child is only capable of describing observable behaviours or characteristics, giving specific examples rather than generalizations about the self. Theory and evidence (e.g., Fisher, 1980; Griffin, 1992; Harter, 2006; Higgins, 1991) indicate that the young child (i.e., 3 – 4 years old) is only cognitively capable of constructing very concrete self-representations of observable features of the self, such as behavioural skills, physical characteristics, possessions and membership categories (e.g., "I can run really fast"; "I have long hair"; "I have a dog"; "I am a girl"). These self-representations describe specific behaviours or skills and do not represent generalizations or higher-order conceptual categories that define the self. From 5 to 7 years old, children begin to display a rudimentary ability to intercoordinate concepts that were previously compartmentalized (e.g., Case, 1985; Fisher, 1980), for example by forming a representational set that combines a number their competencies. Nevertheless, some features of the previous stage persist, such as the overestimation of abilities and all-or-none thinking (Harter, 1990; 2015).

Middle to late childhood. Several studies (e.g., Ray et al., 2009) have suggested that the self-reference effect (i.e., the exhibition of a better memory for information evaluated with reference to oneself) increases from 6 to 10 years old and reaches adult levels by the age of 10. With the emergence of concrete operations in middle childhood, there is a transition from the more concrete self-representations (i.e., attributes that are observable) to more conceptual or trait-like self-attributes. Such labels (e.g., smart, dumb, good-looking, happy, helpful, friendly, popular), represent the newfound ability to classify specific attributes into categories, to form higher-order generalizations about the self. From the standpoint of emerging cognitive-developmental processes, self-attributes represent traits in the form of higher-order generalizations or concepts, built through the integration of more specific behavioural features of the self (see Fisher, 1980; Siegler, 1991). Thus, the attribute "smart" is a higher-order generalization formed through the integration of several specific behaviours (or exemplars), such as scholastic success in a variety of school subjects (i.e., exemplars). Similarly, one's ability to listen, to offer assistance, and to share one's possessions may lead one to view the self as friendly. Trait labels represent a conceptual advance over the previous period since one becomes capable of organizing observable, behavioural attributes into cognitive concepts about the self. Another major cognitive-developmental advance at this

stage is the realization that one's self-attributes can be both positive and negative, in contrast to the all-or-none thinking characteristic of younger children. What were previously contradictory attributes that could not co-exist can now be acknowledged as realistic simultaneous self-descriptors. Thus, self-representations become more integrated (Harter, 2006, 2015). This process is also applied to emotional concepts, allowing the child to develop a representational system in which positive emotions are integrated with negative emotional representations (e.g., Harris, 2008; Saarni, Campos, Camras, & Witherington, 2006).

Early adolescence. In adolescence, a major developmental advance takes place: the development of the ability to think abstractly (Case, 1985; Fischer, 1980; Fisher & Bidell, 2006; Flavell, 1985; Harter, 2006; Higgins, 1991). According to the Piagetian (1960) perspective, this ability emerges with the stage of formal operations in early adolescence. Because of the emergence of the cognitive ability to integrate trait labels into higher-order self-representations, most self-representations that emerge in early adolescence represent abstractions about the self. For instance, one can construct an abstraction of the self as intelligent, by combining traits such as curious and creative. Self-representations in the form of abstractions represent a cognitive advance over the previous stage where the preadolescent could only combine specific behaviours into trait labels. This new capacity to form abstractions allows the emergence of descriptions of the psychological interior that represent abstractions about the self in the form of beliefs, wishes, emotions, and motives. For example, the adolescent may describe the self as sensitive, moody, self-conscious, affectionate, obnoxious, tolerant, and introverted. Thus, these abstractions represent more cognitively complex concepts about the self in which various trait labels can be appropriately integrated into even higher-order generalizations. In contrast to younger children, early adolescents' self-reflection starts to focus increasingly on internal and private attributes of the self that are unobservable by others. These unobservable abstract self attributes represent hypothetical constructs about the adolescent self, and therefore typically require more inference about one's latent characteristics than do the self-descriptions of children (Harter, 1990, 2006, 2015).

<u>Middle adolescence.</u> Despite this move to the level of abstract thought, early adolescents still lack the ability to integrate the several single abstractions through which they define themselves in different relational contexts. Therefore, early adolescents can only think about compartmentalized self-representations, one at a time, but not simultaneously (e.g.,

Fisher & Bidell, 2006). It is not until middle adolescence that additional cognitive I-self processes emerge that allow the integration of multiple Me-selves (e.g., one can be tolerant with close friends but intolerant with another group of friends) (Case, 1985; Fischer, 1980; Fischer & Bidell, 2006). Whereas, in early adolescence, single abstractions were isolated form one another, during middle adolescence emerges the ability to make comparison between single abstractions, namely, between self-representations within the same role-related self (e.g., friend) as well as across different role-related selves (e.g., girlfriend and daughter). This new ability forces the adolescent to compare and contrast different attributes that can take the form of opposites, which, in turn, can take the form of seemingly contradictory traits.

In sum, as age increases and the ability to draw inferences and hypothesis about underlying characteristics develops, self-representations become more abstract and less concrete. They progressively shift from objective, observable categories in childhood (e.g., physical appearance, play activities, possessions) to more subjective ones, such as motivational and interpersonal characteristics, in adolescence. This shift, however, is not simple and linear; rather, it is marked by simultaneous advances and setbacks as children and adolescents adapt to the successively emerging new cognitive abilities (Montemayor & Eisen, 1977; Fisher & Bidell, 2006; Harter, 2015; Harter & Monsour, 1992).

3.2. Self as a social construction

Despite differences in the focus of analysis, the several theories on the self converge in grounding the self in social context (Oyserman et al., 2012). Indeed, like all personal knowledge, the self is constructed in a relational context, through a person-in-context. Relational influences on the construction of the self occur through the shared values, ideologies, or norms that are socially constructed and communicated through signs, symbols, meanings, and expectations that are found in language, discourse or communication (Adams & Marshall, 1996). These relational influences or contextual effects on the self include macro-level features, such as culture, economics, institutional values, social class, ethnic membership, schooling, as well as micro-level features, such as interpersonal communication, conversation, and everyday interactions (e.g., for reviews, see Hogg, 2003, 2006; Oyserman & Markus, 1993, 1998; Tajfel &Turner, 2004).

At a broader level, self-representations are informed by the standards and values of

the larger society (Nelson, 2003; Oyserman & Markus, 1998; Oyserman et al., 2012). Indeed, social integration and the social order require that individuals in each cultural group present some similarities in describing themselves (Harter, 2015). Culturally significant stories, proverbs, icons, institutions, as well as in the everyday social life behaviours (e.g., language, caretaking, schooling, media, religious, workplace, etc.) reflect a set of ideas about "how to be" that are shared in each group (Oyserman & Markus, 1998). For example, regarding perceptions of one's physical attractiveness, those who perceive themselves as not meeting the cultural ideal of appearance standards are likely to suffer from low self-esteem and depression, but those who consider having reached the culturally valued physical characteristics are likely to experience relatively high levels of self-esteem (see Harter, 1993; 2006a; 2015). Indeed, culture provides various guidelines to conceptualize the self that are in line with the differing culture values and societal goals (Cousins, 1989; Markus & Kitayama, 1991, 2003; Triandis, 1989), thereby guiding which aspects of experience individuals attend to and integrate into their self-concepts, and influencing the self-relevant processes in cognition, memory, emotions, and motivations (Markus & Kitayama, 1991; 2003).

Based mainly on observations and research comparing American and Japanese culture, which are thought to be representative of various independent (American and Western European) and interdependently oriented cultures (Asian, African, Latin-American and Southern European), Markus and Kitayama (1991) delineated the concepts of independent and interdependent self-construals. According to these authors, independent selfconstruals consist on viewing the self as autonomous, a discrete entity from others with a focus on distinct, internal attributes, while interdependent self-construals involve representing the self as being linked with others and mostly defined within social relationships. The rigid distinction between these two concepts has come to be criticized by several authors who have argued that independence and interdependence are not mutually exclusive constructs, but rather co-exist in the individual as two distinct dimensions of self-construal (Matsumoto, 1999; Oyserman et al., 2012; Singelis, 1994). Indeed, writers from many disciplines have emphasized that individuality and sociality are indispensable and mutually reinforcing aspects of human functioning in any cultural system (Guisinger & Blatt, 1994; Matsumoto, 1999; Spiro, 1993; Taylor, 1991; Vignoles, Chryssochoou, & Breakwell, 2004; Vignoles et al., 2016).

Embedded in a specific culture, self-representations are then socially and relationally

constructed (Harter, 2015). One of the most important theories about the construction and development of selfhood is the symbolic interactionist theory (Cooley, 1902; Mead, 1934; Kinch, 1963). One of the central premises of the symbolic interactionism theory is that individuals' reality is constructed and shared in the social context. In order to understand the construction of social reality one must acknowledge that social life is a symbolically mediated process in which language plays a central role, not only as a basic principle for social organization, but also as the principle responsible for the human mind emergence (Silva, 2007). According to the symbolic interactionism theory, despite people's reflexive capacity, it is through social interactions that individuals learn the symbols and meanings that allow them to exert that reflexive ability. It is through symbols that individuals actively create the world in, and upon, which they act. People label, remember, categorize, perceive, think, decide, solve problems, transcend space and time and even themselves (e.g., by being able to see reality through the other's perspective), create abstractions and new ideas, guide their behaviour - all this thanks to symbols (Charon, 1989). Thus, symbolic interaction is the process through which the use of symbols (language or gestures) enables social behaviour. According to Mead (1934), this symbolic order is created not only through social interactions, but more specifically through active communication, which allows a shared symbolic order (Charon, 1989).

Cooley (1902) asserted that any reference that the *I self* makes to the *Me self* inevitably places the self in a social context, as the object of perception. In this perspective, from the moment they are born, people gradually accumulate a stock of self-schemas, which are built as significant others, as well as others in general, and the broader cultural context, inform them about themselves. The symbolic interactionism theory has commonly been tested by examining to what extent people's beliefs about themselves correlate with what their friends and acquaintances think of them. If self-knowledge derives from information communicated in social interaction, these correlations should be high. However, in a well know review of findings from this body of research, Shrauger and Shoenemen (1979) found that these correlations tend to be weak or negligible. That is, people's self-ratings did not match up well with how other people rated them (i.e., others' actual appraisals) (Baumeister, 1999). On the other hand, peoples' self-ratings did match up well with how they believed other people rated them (i.e., others' reflected appraisals). Beliefs about the self could thus derive from the feedback one believes that one gets from others.

The discrepancy thus appears to be between how people believe others perceive them (i.e., reflected appraisals) and how the others actually perceive them (i.e., others' actual appraisals). First, people are not always honest when telling others what they think of them. Social communication is diluted by norms of politeness and simple reluctance to give negative feedback. Second, even when people do honestly tell individuals what they think of them, the receptor of such feedback does not passively accept that information. Indeed, people use many self-deception processes to help them avoid facing disagreeable facts about themselves. Thus, the inner self may be shaped by social communication, but the self is far from a passive accepter of feedback. Instead, the self actively processes and selects (and sometimes distorts) information from the social world (Baumeister, 1999).

3.2.1. The relevance of significant others

Although overall social interactions as well as the wider sociocultural context influence the construction, content and valence of individuals' self-representations, it is also recognized that some social relationships are more relevant than others in this process. Indeed, one of the strongest reasons appointed to the weak or inexistent association between others' actual appraisals and others' reflected appraisals is that many tests of the looking-glass self hypothesis have not considered individuals' significant others (Cook & Douglas; Kenny & DePaulo, 1993). Close relationships with significant others present a set of structural characteristics that favour those others' influence and that allow individuals to have a better awareness of significant others' actual appraisals of them (Cook & Douglas, 1998). Specifically, in such close relationships, frequent communication and interaction are more likely. Therefore, the cues about close or significant others' actual appraisals are more salient and likely to be regularly observed by the target-individual.

Indeed, Cooley (1902) defended the prevalence of influence of significant others' judgments and feedback in the construction of self-representations. According to this author, "in the presence of one whom we feel to be of importance, there is a tendency to enter into and adopt, by sympathy, his judgment of ourself" (Cooley, 1902, p. 175). Thus, significant others would function like a looking-glass self: when significant others make an appraisal about us (i.e., significant others' actual appraisal), we perceive this appraisal (i.e., reflected appraisal) and this perception influences how we perceive ourselves (i.e., self-representations). In effect, some studies have provided a clearer support for the assumption of

a greater influence of close relationships (e.g., Cole, 1991; Cole, Jacquez, et al., 2001; Nurra & Pansu, 2009). Therefore, we will focus our attention predominantly in how socializing experiences in children's and adolescents' interactions with significant others can influence the specific content and valence of one's self-representations.

Among all the social contexts that influence self-construction, the family is usually the most consistently enduring one. Interpersonal interchanges within the family are particularly relevant in the formation of the self, given that they serve as a model by which the developing child will organize his/her internal experiences into a coherent system (Brighton-Cleghorn, 1987; Carmichael et al., 2007). As these interactional patterns are assimilated and accommodated, the organizing principles of the self are formed (Deason & Randoplh, 1998; Harter, 2015). Given that self-concept is most malleable in early life, early caregivers are particularly influential in shaping individuals' self construction in almost every domain of activity (Carmichael et al., 2007; Collins, Maccoby, Steinberg, Hethrington, & Bornstein, 2000; Cook & Douglas, 1998). Thus, from birth on, interactions with caregivers, most often parents, serve as the building blocks for self construction.

In addition to Cooley's perspective of the looking-glass self, another main theory about the influence of significant others in the construction of individuals' self-representations is attachment theory (Bowlby, 1973). According to Bowlby (1973), people rely on attachment experiences as a source of information for learning about themselves, through interactions with caregivers. Hence, these experiences shape a person's self-concept. Sroufe and Fleeson (1986) proposed that components of the attachment figures are incorporated into the self through the learning of roles within the relationship. Thus, the more people feel secure in their relationships, and the more they feel valued by others, the more they come to feel valuable and special. Conversely, people who feel rejected by attachment figures may feel worthless and of little value. These premises about the self in relation to others constitute the core of what attachment theorists refer to as internal working models. Ample evidence has accumulated in the literature indicating that experiences in attachment relationships profoundly influence working models of the self (Shaver, Collins, & Clark, 1996).

3.2.2. Liabilities associated to significant others' influence: Adverse family experiences and self-construction

As we have already seen, benevolent socializing agents will readily provide the nurturance, approval, and support that will be mirrored in positive and adaptive self-representations. Approval, in the form of the reflected appraisals of others is, therefore, internalized as acceptance of the self. Nevertheless, unresponsive caregivers, lacking in nurturance, encouragement and approval, and who are rejecting, punitive, or neglectful, will likely cause their children to develop negative representations of self. In such child-rearing situations, family members tend to reinforce children's and adolescents' negative self-representations, which are then assimilated into their self-concept (Briere, 1992; Fischer & Ayoub, 1994; Harter, 1998; Herman, 1992; Terr, 1991; Westen, 1993). As a result, there may be little scaffolding for the kind of self-structure that would allow the child/adolescent to develop cognitively, and thus integrate both positive and negative self-representations. Maltreated children and adolescents, therefore, are more likely to present a less coherent self-structure (Cicchetti & Toth, 2006). In the extreme, children and adolescents who are victims of severe and chronic abuse typically create very poor representations of themselves (Harter, 2015).

Consistent with these arguments, attachment theorists (e.g., Bretherton, 1991; Bretherton & Munholland, 2008; Sroufe, 1990) noted that children who experience responsive caregiving with parents emotionally available, loving and supportive of their mastery efforts will construct a working model of the self as lovable and competent. Oppositely, children who experience unresponsive caregiving with attachment figures that are rejecting or emotionally unavailable and non-supportive will construct a working model of the self as unlovable, incompetent, and generally unworthy (Carmichael et al., 2007; Harter, 2015). Unresponsive caregiving is most likely to occur in adverse family environments, characterized by hostile social experiences both in the parent-child and interparental subsystems. Adverse social experiences in the parent-child and interparental relationships can severely undermine children's and adolescents' sense of security provided by attachment figures. Such sense of security is viewed as children's and adolescents' overall expectation about their parents' responsiveness and supportiveness, and is closely linked to self-concept (Carmichael et al., 2007). Therefore, social experiences in the family that disrupt that sense of security - such as interparental conflict and abusive and neglectful parenting -

can be very damaging to the self-construction process. The expectations about the unresponsiveness of significant others, resulting from such social experiences, are likely to be incorporated into negative self-models and expressed as reduced self-worth and a pervasive sense of anxiety about close relationships (Holmes & Cameron, 2005). Alongside, such adverse family experiences may also contribute to social information-processing rules and biases, and to undermined representations of self and others (Repetti, Taylor, & Seeman, 2002).

Given that these experiences impact family interactions and processes in a global way, they may profoundly affect children's and adolescents' representational patterns and, therefore, their self-representations (Cummings & Davies, 2010; Grych & Fincham, 1990; Toth et al., 1997). Indeed, children in high-conflict family environments are more likely to have more negative working models of family relationships and to present more negative views of themselves and their social worlds (Grych, Harold, & Miles, 2003; Schermerhorn, Cummings, & Davies, 2008; Shamir, Schudlich, & Cummings, 2001). Children's and adolescents' negative self-representations and overall self-concept have specifically been linked to high levels of interparental conflict (Grych, Wachsmuth-Schlaefer, & Klockow, 2002; Isabella & Diener, 2010) as well as with maltreatment from caregivers (Bolger, Patterson, & Kupersmidt, 1998; Egeland, Sroufe, & Erickson, 1983; Kaufman & Cicchetti, 1989; Okun, Parker & Levendosky, 1994; Toth et al., 1997; Toth, Cicchetti, MacFie, Maughan & Vanmeenen, 2000; Toth, Manly, & Cicchetti, 1992). Thus, previous research clearly suggests that adverse family experiences, such as interparental conflict and maltreating parenting practices, may be particularly damaging to children's and adolescent's self-construction process.

4. Implications of self-representations for overall psychosocial functioning

In addition to an analysis of the antecedents or determinants of self-representations, a full comprehension of the self must also focus on its consequences or implications. The importance of the study of self-representations stems from the strong impact that it seems to have upon behavior. A growing body of evidence supports this notion by demonstrating their associations with concurrent and subsequent functioning (Baumeister, 1990; Caldwell et al., 2004; Damon & Hart, 1988; Davis-Kean et al., 2008; King, Naylor, Segal, Evans, & Shain, 1993; Ryan, Stiller, & Lynch, 1994; Salmivalli & Isaacs, 2005). As mentioned earlier, self-

knowledge frames individuals' behaviour and direct its course (Baumeister & Bushman, 2014; Jacobs et al., 2003; Oyserman et al., 2012). Having a sense of oneself and of what one is capable of allows people to adapt to the demands of the specific situations and social contexts that they are part of (Baumeister & Bushman, 2014).

The role of the self in the organization and regulation of behaviour has recently emerged as a central focus of developmental theory and research (Harter, 2015). Self processes perform organizational functions in that they provide expectations and guidelines that allow one to interpret and give meaning to life experiences and to maintain a coherent picture of oneself in relation to one's world. Self processes also perform motivational functions in that they provide plans and incentives, and energize the individual to pursue selected goals (e.g., Oyserman, 2015). In addition, self processes have also a protective function toward the goal of maintaining favourable impressions of one's attributes and to more generally maximize pleasure and minimize pain (Boden, Fergusson, & Horwood, 2008; Jacobs et al., 2013; Harter, 2015). Despite these positive functions, the children's ability to progressively construct more realistic self-representations can threat the self-system to the extent of their discrepancy from individual preferred or ideal self-representations. Also, the increasing ability to integrate differing self-attributes into a coherent and consistent sense of self also often leads to experiences of conflict over seemingly contradictory selfrepresentations in different social roles (Fischer, 1980; Harter & Monsour, 1992; Harter, Bresnick, Bouchey, & Whitesell, 1997).

Children's and adolescents' efforts to deal with these normative threats to the self-system may lead to the experience of some normative and transient difficulties in some domains of their psychosocial functioning difficulties. However, other negative consequences may be more severe than normative developmental liabilities, and may assume a psychopathological form (e.g., Orth, Robins, & Roberts, 2008). These kinds of negative consequences are typically the result of highly inappropriate socializing experiences and child-rearing practices, which can compromise children's and adolescents' self-construction and their psychosocial functioning (e.g., Putman, 1993; Westen, 1993).

All in all, individuals' self-representations powerfully affect their goals, actions, and outcomes. Accordingly, over the last 30 years, there has been increasing emphasis on the implications or consequences of self-representations for overall psychosocial functioning among theorists of the self (Bandura, 1978; Epstein, 1973, 1981; Harter, 2006a, 2006b, 2015;

Higgins, 1991; Leahy, 1985; Weiner, 1985). Nowadays, the self is less likely to be treated merely as a correlate or an epiphenomenon, but is increasingly considered to be either a direct predictor of behavioural adaptation or as a mediator between experiences in the social contexts and behaviour (Harter, 1990, 2015; Oyserman et al., 2012; Oyserman, 2013, 2015).

In effect, a number or sequential models, where aspects of the self-knowledge are considered as essential mediators (i.e., to perform a functional role) of overall psychosocial functioning can be identified in the literature (e.g., Bandura, 1978; Beck, 1967; Dweck & Elliot, 1983; Harter, 1986; Higgins, 1987; Kanfer, 1980; Oyserman, 2013, 2015; Seligman, 1975; Wicklund & Frey, 1980). Such models differ somewhat in the targeted aspect of self-knowledge in that some emphasize rather specific self-representations, whereas others emphasize more global assessments of self-concept, self-esteem or self-efficacy. However, they all converge in their support for the assumption that the self plays an important role in predicting and explaining behaviour.

CHAPTER II

GENERAL RESEARCH PROBLEMS AND OBJECTIVES

I. General Research Problems

Summing up the literature review presented in the previous chapter, the self can thus be broadly conceptualized as a multidimensional and dynamic phenomenon which is constructed as individuals move through social contexts (e.g., Roberts, Walton, & Viechtbauer, 2006; Oyserman et al., 2012; Harter, 2015). There is a theoretical consensus in assuming that the self, self-concept, and the specific self-representations are cognitive constructs, which are shaped by the social contexts and interpersonal experiences, and have implications for individuals' behaviour and overall psychosocial functioning (Oyserman et al., 2012). Bridging together the three facets of this broad conceptualization – i.e., self-representations as cognitive constructs, social products, and predictors of action – the studies developed in this thesis focus on understanding the processes through which social experiences between and with close significant others (i.e., parents/caregivers) are associated with children's and adolescents' cognitive self-representations (or self-schemas), as well as the role of self-representations as potential mediators of the link between those experiences and their psychosocial functioning.

As described in the previous chapter, the relevance of close significant others in the construction of self-representations is emphasized by two main broad theoretical perspectives. On the one hand, according to the attachment theory, parent-child interactions generate internal working models which shape how individuals come to perceive themselves and others (Bowlby, 1969; Bretherton & Munholland, 2008; Main, Kaplan, & Cassidy, 1985). On the other hand, according to the "Looking Glass Self Hypothesis" (LGSH; Cooley, 1902; Nurra & Pansu, 2009), self-representations stem from interactions with significant others, and result from the associations between what significant others perceive us (i.e., significant others' actual appraisals), how we perceive significant others perceive us (i.e., significant others' reflected appraisals), and self-representations.

However, empirical research about the influence of significant others in the formation of self-representations has neglected the analysis of important characteristics of relationships within the family context, such as interparental conflict and child/adolescent maltreatment parenting practices. As mentioned before, this kind of experiences are particularly relevant for self-representation construction, given that, by affecting family interactions in a global way, they can shape children's and adolescents' representational patterns, and, therefore, how their self-representations are formed (Cummings & Davies, 2010; Davies & Cummings,

1994; Toth et al., 1997). Thus, three main research problems were identified, which we outline in more detail below.

Regarding family contexts marked by interparental conflict, grounding on the Emotional Security Theory (TSE; cummings & Davies, 2010; Davies & Cummings, 1994), children and adolescents signs of emotional insecurity in the interparental relationships (i.e., negative emotional reactivity; negative representations about interparental conflict; and excessive behavioural regulation of exposure to conflict between parents), as well as features of parent-child relationships have been analysed as mediators of the link between interparental conflict and multiple child and adolescent developmental outcomes (e.g., internalizing and externalizing problems). Nevertheless, although associations between interparental conflict and children's and adolescents' self-representations have been documented (e.g., Isabella & Diener, 2010; Siffert, Schwarz, & Stutz, 2012), little is known about the processes that explain that relationship. This emphasizes the need to contemplate children's and adolescents' emotional cognitive and behavioural reactions, as well as parent-child relationship dimensions, when analysing that association (Cummings & Davies, 2010; Davies & Cummings, 1994).

The processes underlying the social construction of children's and adolescents' self-representations in family contexts with maltreatment parenting practices have also not been analysed, although maltreatment experiences may lead to negative representational models of the self, the caregivers and overall interpersonal relationships (Toth et al., 1997). In addition, even though research on the LGSH with normative/community samples have supported the association between significant others' reflected appraisals and self-representations, results on the association between significant others' actual appraisals and reflected appraisals have been inconclusive (Cook & Douglas, 1998; Shrauger & Shoenemen, 1979). This highlights the need to analyse interpersonal variables (e.g., parent-child communication) as moderators of the relation between significant others' actual appraisals and reflected appraisals. Indeed, the feedback parents give their children about their actual appraisals of them, through parent-child communication, can play an important role in the formation of reflected appraisals, that is, children's and adolescents' representations of their parents' appraisals of them (Cook & Douglas, 1998; Nurra & Pansu, 2009).

At last, although previous studies have accounted for the predictive role of children's and adolescents' self-representations on several aspects of their psychosocial functioning

(e.g., Jacobs et al., 2003; Salmivalli & Isaacs, 2005), and despite the increase of a mediational approach to the study of the implications of self-representations to individuals' adjustment outcomes (Harter, 1990, 2015; Oyserman et al., 2012), little is known about the associations between their domain-specific self-representations and different aspects of their psychosocial functioning, and about the potential mediating roles of several self-representation domains in the relation of children's and adolescents' experiences with interparental conflict and maltreatment with their psychosocial functioning. In addition, as mentioned previously, throughout development, significant changes take place in the content and structure of self-representation: from childhood to adolescence, children increasingly adopt others' perspective, and incorporate more psychological attributes as well as negative and seemingly contradictory information about themselves into their self-representations (e.g., Harter, 1998, 2015). This highlights the need to analyse age as a moderator of those pathways, when including a considerable age range.

II. General research objectives

Aiming to address these gaps in the literature, two studies were developed. In Study 1, the social construction of children's and adolescents' self-representations will be addressed by examining the association between interparental conflict and self-representations, through children's and adolescents' reactions to their experiences with conflict between parents as well as through their perceptions of their relationship with both parents. In Study 2, the influence of significant others on maltreated children's and adolescents' self-representations will be addressed by testing Cooley's looking-glass self-hypothesis, taking into consideration the potential moderating role of the quality of parent-child communication. Finally, in both studies, we also aim to analyse the implications of children's and adolescents' domain-specific self-representations, associated to interparental conflict (in Study 1) and child/adolescent maltreatment (in Study 2), on their psychosocial functioning in terms of internalizing and externalizing behaviour.

In the first study, basing on the emotional security theory (Cummings & Davies, 2010; Davies & Cummings, 1994), we intend to analyse the mediating role of children's and adolescents' emotional insecurity in the interparental relationship (i.e., emotional reactivity, representations of interparental conflict, and behavioural regulation of exposure to conflict), and perceptions of their relationship with their parents, in the association between

interparental conflict and their self-representations. Similar to the attachment theory (Bowlby, 1969), the emotional security theory (EST) (Cummings & Davies, 2010; Davies & Cummings, 1994) posits that relational experiences with parents (or caregivers) generate generalized expectations about the self, the self in relation to others, and interpersonal experiences. However, according to EST, the consequences of those experiences occur through pathways involving both parent-child as well as the interparental relationships.

Thus, EST focus on examining if children's and adolescents' signs of insecurity in the interparental relationship mediate or explain the relation between interparental relationship and child and adolescent outcomes, conceptualizing interparental conflict as dimension varying from constructive to destructive, depending on its frequency, intensity and resolution (Cummings & Davies, 2010; Davies & Cummings, 1994). In addition, in what concerns the parent-child subsystem, EST also posits that dimensions of parent-child relationships may underlie the association between interparental conflict and child/adolescent outcomes. Indeed, research has highlighted the importance of parent-child relationships in shaping children's and adolescents' self-representations, showing that negative perceptions about the relationships with attachment figures (i.e., caregivers) are associated with more negative self-representations (Toth et al., 1997). Therefore, we intend to analyse the association between interparental conflict and children's and adolescents' self-representations, grounding on the EST (Cummings & Davies, 2010; Davies & Cummings, 1994), by analysing their signs of emotional insecurity in the in the interparental relationship and their perceptions of their relationship with their parents as mediators of that association.

In the second study, we aim to test Cooley's Looking Glass Self Hypothesis (LGSH; Cooley, 1902; Nurra & Pansu, 2009) about the association between significant others actual and the self-representations of children and adolescents with maltreatment experiences, through significant others' reflected appraisals, that is, the appraisals (i.e., representations) that children and adolescents have of how those significant others appraise them. Given the inconsistencies in the literature regarding the results of studies testing Cooley's LGSH (e.g., Cole, 1991; Nurra & Pansu, 2009; Shrauger & Shoenemen, 1979), as well as the scarcity of research about the processes underlying the association between maltreatment parenting practices and children's and adolescents' self-representations, we intend to understand the social constructions of self-representations in the context of close interpersonal relationships with significant others marked by maltreatment experiences from caregivers, in light of the

LGSH, assuming that parent-child interactions that are markedly negative can be associated with also negative self-representations in children and adolescents (Cook & Douglas, 1998).

The results about the mediating role of reflected appraisals in the relation between actual appraisals and self-representations have been quite divergent, which may be due to the fact that individuals are not always accurate in their appraisals oh how others actually perceive them (Cook & Douglas, 1998), and that the association between significant others' appraisals and self-representations may vary depending on the feedback about those appraisals that is communicated to children and adolescents (Nurra & Pansu, 2009). Therefore, such inconsistencies in the literature highlight the importance of examining the potential moderating role of parent-child communication in the pathways linking significant others actual appraisals, reflected appraisals, and self-representations. Thus, in this study, we will test Cooley's LGSH (Cooley, 1902) in the context of child/adolescent maltreatment, considering parent-child communication as a moderator of the association of parents' actual appraisals with reflected appraisals, as well as with self-representations.

At last, given that the contributions of different facets of self-representations, as associated to children's and adolescents' experiences with interparental conflict and maltreating caregiving, for their psychosocial functioning remain unexplored, in both studies we also intend to analyse the mediating role of children's and adolescents' domain-specific self-representations in the association between adverse family experiences and their psychosocial functioning. Therefore, we will analyse children's and adolescents' psychosocial functioning as predicted by interparental conflict in Study 1, and by maltreatment experiences in Study 2, examining self-representations as mediators of those associations.

CHAPTER III

INTERPARENTAL CONFLICT AND CHILDREN'S AND ADOLESCENTS' SELF-REPRESENTATIONS: AN EMOTIONAL SECURITY PERSPECTIVE

I. Theoretical Framework

1. Interparental conflict conceptualization and its contribution to risky family environments

The interparental relationship has been identified as the cornerstone of the family unit (Cowan & Cowan, 2002). Therefore, different ways of expressing affect and managing relationships in the interparental subsystem may have significant reverberations throughout the family system (Sturge-Apple, Davies, & Cummings, 2006). An important aspect of interparental relationships that can greatly influence the overall family system is how parents manage interparental conflict.

According to Cummings and Davies (2010), interparental conflict is not necessarily a predictor of child, marital, or family problems. In fact, conflict can include both positive and negative features; it can be discussed in constructive or in destructive ways. Therefore, these authors have proposed a working definition of interparental conflict "as any major or minor interparental interaction that involved a difference of opinion, whether it was mostly negative or even mostly positive" (Cummings & Davies, 2010, page. 8). From this definition, interparental conflict is thus conceptualized as a normal and inevitable phenomenon in marital relationships, which can include any dispute, discord, or expression of any given emotion about matters of the interparental everyday life (e.g., household duties, children's education). Thus, the constructiveness vs. destructiveness of interparental conflict depends on its features, namely its frequency, intensity and resolution.

Frequency. Empirical evidence has consistently supported the assumption that repeated exposure to interparental conflict makes children and adolescents increasingly sensitive to it. Specifically, it is associated with an increased reactivity to interparental conflict, including fear, anger, aggressiveness, and involvement in conflicts (e.g., Davies & Cummings, 1994; Sturge-Apple et al., 2006).

Intensity. More intense conflicts are more likely to cause greater distress on children and adolescents. Intensity may be determined, for example, by the degree of expressed negative affect or hostility, and by the occurrence of physical violence. Conflicts between parents involving physical aggression are particularly upsetting to children and adolescents and may be more intimately associated to problem behaviours than less intense forms of conflict (Cummings & Davies, 2010; Davies & Cummings, 1994). Both verbal and non-

verbal (e.g., aggressive looks and gestures, treatment silence) forms of conflict can negatively impact children and adolescents (Cummings, Ballard, & El-Sheikh, 1991; Shelton, Harold, Goeke-Morey, & Cummings, 2006). Interparental conflict characterized by a high intensity and escalation of hostility and arguments may undermine children's and adolescents' sense of security, for example by increasing the fear about parents' unhappiness with their marriage and family life, divorce or family dissolution, and the spillover of hostility from the interparental subsystem to the overall family context, for example undermining parent-child relationships) (e.g., Davies & Cummings, 1994).

Resolution. The way interparental conflict ends or is resolved can also have an impact on children's and adolescents' reactions (Cummings & Davies, 2010; Davies & Cummings, 1994; Grych & Fincham, 1990). Conflicts that are not resolve or that are poorly resolved are more upsetting to children than the ones that are successfully resolved. In fact, parents that successfully resolve their arguments provide positive models to conflict resolution, which, in turn, may lead to better social skills and coping strategies, while poor conflict resolution can create an enduring family tension and lead to an increase in conflict frequency. Exposure to conflict resolution and overall interparental consensus may even be constructive for children, since it would mean that parents are well with one another, it would reduce the likelihood of proliferation of interparental problems or its spillover to other family subsystems, and ultimately, it would help children and adolescents to deal with the inevitable conflicts and negative feelings in life (Cummings & Davies, 1994; Davies, Myers, & Cummings, 1996; Easterbrooks, Cummings, & Emde, 1994). Indeed, parents who resolve their arguments in a constructive way provide their children adequate models of conflict resolution and problem solving, which may subsequently help them in their overall social interactions. The occurrence of such benefits will largely depend on the other characteristics of the conflict. For example, conflicts that are very frequent and intense are likely to be detrimental to children, even if they are adequately resolved (Grych & Fincham, 1990).

1.1. Interparental conflict as a characteristic of risky family environments

So, more than a risk factor and an isolated occurrence in families, destructive interparental conflict poses an important social problem and contributes to risky family environments, since it may relate to poor development outcomes in children and adolescents (e.g., Rhoades, 2008). As Repetti and colleagues (2002) have described, anger and aggression

are central characteristics of risky families, given that they are associated with multiple negative influences on children's and adolescents' development. Broadening these notions, Cummings and Davies (2010) have argued that interparental conflict is particularly relevant to the concept of risky family environments, not only because of the risk it poses for children and adolescents, but also because of the links between interparental conflict and other family processes (e.g., parental insensitivity, insecure attachment, and lack of parental warmth) that may impact child and adolescent adjustment (Frosch & Mangelsdorf, 2001; Margolin, Gordis, & Oliver, 2004).

A sound body of research identifies interparental conflict as a crucial element in relationships between marital functioning and child and adolescent outcomes (Cummings & Davies, 2010). Interparental conflict involving escalating anger, reciprocal negativity, and physical aggression is very characteristic of distressed couples (e.g., Hotaling & Sugarman, 1990). Also, associations between destructive interparental conflict and child adjustment problems are clear even when controlling for general marital distress (e.g., Jenkins & Smith, 1991). In fact, of all the problems associated with distressed couple relationships (e.g., covert tension, marital apathy), destructive interparental conflict manifested through overt hostility between parents has emerged as the main stronger predictor of child adjustment problems (Cummings & Davies, 2010; Jenkins & Smith, 1991).

For these reasons, it is necessary to recognize the crucial role of interparental conflict in the formation of risky family environments for children and adolescents in order to give due importance to the effects of interparental conflict as a risk factor. Indeed, Cummings and Davies (2010) extend the notion of risky families to include a wide range of community families. Therefore, it is important to consider interparental conflict whenever one is concerned about how family contexts may be associated with children's and adolescents' development outcomes (Davies & Cummings, 2006).

1.2. Process oriented approaches for studying how interparental conflict relates do child and adolescent outcomes

The associations between destructive interparental conflict and multiple child and adolescent maladjustment outcomes are well established (Rhoades, 2008), including associations with internalizing and externalizing problems (e.g., Buehler, Lange, & Franck, 2007), difficulties in social skills and relationships (e.g., Cowan, Cowan, Pruett, & Pruett,

2007; Schoppe-Sullivan, Schermerhorn, & Cummings, 2007), physical health problems (e.g., Nicolotti, El-Sheikh, & Whitson, 2003), sleep problems (e.g., Kelly & El-Sheikh, 2013), and poorer academic performance (Davies, Woitach, Winter, & Cummings, 2008). Since 1990, research on this area has moved from demonstrating such associations to a more process-oriented study of the effects of interparental conflict on children and adolescents, focusing on identifying the multiple processes (e.g., psychological, physiological) set in motion by interparental conflict, that could account for, as well as the conditions that could exacerbate or dampen, those associations (Cummings & Davies, 2002; 2010; Davies & Cummings, 1994; Grych & Fincham, 1990).

The advances in understanding the explanatory mechanisms linking interparental conflict, as a risk factor, to children's and adolescents' psychosocial difficulties have focused on two main complementary conceptual models: 1) the cognitive-contextual framework (Grych & Fincham, 1990, 2001), which emphasizes the role of children's and adolescents' problematic cognitive appraisals, and 2) the emotional security theory (Davies & Cummings, 1994; Cummings & Davies, 2010), which focuses on the role of children's and adolescents' emotional insecurity. Both conceptual models share the assumption that repeated exposure to destructive interparental conflict leads to a greater sensitization in children and adolescents, which, in turn, increases their risk for psychosocial maladjustment. Despite some overlap between the two theories, the differences between them merit mention at this point.

The cognitive-contextual framework emphasizes the role of two dimensions of children's and adolescents' appraisals of interparental conflict – perceived threat and blame – in affecting their outcomes (Grych & Fincham, 1990). According to this framework, as children and adolescents repeatedly witness destructive interparental conflict, they tend to increasingly perceive that conflict as threatening, thus becoming increasingly predisposed to adjustment problems. Additionally, their self-blame appraisals regarding interparental conflict – that is, the perception that they have some responsibility for the conflict and parental distress – may lead to increased feelings of guilt, shame, helplessness, and poor self-worth, which, in turn, may develop into adjustment problems. These pathways have been supported by several studies (e.g., Grych, Fincham, Jouriles, & McDonald, 2000; Grych et al., 2003; Grych, Seid, & Fincham, 1992).

The emotional security theory (EST; Cummings & Davies, 2010; Davies & Cummings, 1994) complements the cognitive-contextual model, in so far as it recognizes the

relevance of cognitions in coping processes, but places greater emphasis on emotionality, specifically on the relevance of emotional security to children's and adolescents' responses in face of interparental conflict. The primacy of emotionality can be observed in the reactions of children to interparental conflicts, since the most visible reaction is emotional disturbance (e.g., Cummings, 1998). According to EST, the maintenance of a sense of protection and security in the interparental relationships is what motivates their reactions to interparental conflict (Cummings & Davies, 2010; Davies & Cummings, 1994, 1998). Theorists of EST propose that emotional security about interparental conflict is reflected by three main interrelated but conceptually distinct elements or process components: emotional reactivity, and internal cognitive representations, and regulation of exposure to interparental conflict behavioural regulation (Davies & Cummings, 1994, 1998). Emotional reactivity refers to the emotional manifestation of insecurity, specifically through feelings fear, anger, and sadness. Internal cognitive representations result from children and adolescent' assessment of the consequences of a given conflict expression and its potential to adversely impact overall family well-being; it refers to the appraisal manifestation of insecurity, by including concerns about the possibility of parental separation and family disintegration, and the potential spillover of hostility into parent-child relations. Finally, behavioural regulation of exposure to interparental conflict consists of the behavioural manifestation of insecurity by including avoidant and involvement coping behaviours. Although interdependent, these three elements represent distinct indicators of children's and adolescents' emotional insecurity within the context of interparental hostility (Buehler et al., 2007; Harold, Shelton, Goeke-Morey, & Cummings, 2004)

Also, EST is consistent with attachment theory (Bowlby, 1969), given that it holds that differences in children's abilities resort to their parents as sources of security have important implications for their adjustment. However, while attachment theory emphasizes children's behaviour aimed at increasing caregivers' sensitivity and protection, EST emphasizes reactions to potentially threatening family situations aimed at reducing or avoiding the perceived threat posed by destructive interparental conflict (Cummings & Davies, 2010).

Despite the correspondence and overlap among the theories, there are important distinct assumptions that allow the expectation of differences in prediction. Studies focused on assessing if emotional security still contributes to the prediction of child/adolescent

adjustment, even when constructs derived from the cognitive-contextual framework and attachment theory are taken into account, supported this expectation. Specifically, this research has shown that pathways linking interparental conflict, children's emotional insecurity, and maladjustment remained robust within statistical models that incorporate alternative explanatory processes – namely, cognitive-contextual constructs and security in the parent-child relationship – in both cross-sectional and longitudinal tests (e.g., Buehler et al., 2007; Cummings, Schermerhorn, Davies, Goeke-Morey, & Cummings, 2006; Davies, Harold, et al., 2002; Harold et al., 2004).

Thus, despite the merits and contributions of other process-oriented models, EST seems to offer the most explicit formulation and testable predictions about multiple regulatory processes (e.g., emotional, cognitive, behavioural) as distinct pathways. EST also has the ability to demonstrate that pathways between interparental conflict and child/adolescent outcomes may occur in multiple ways, not only through children's and adolescents' responses to interparental conflict, but also through influences in parenting and other family systems (Cummings & Davies, 2010). In addition, among the other theories in this area, only EST has continually progressed, benefitting from many updates since its initial conceptualizations (e.g., Cummings & Davies, 1996; Cummings & Miller-Graff, 2015; Davies & Woitach, 2008; Davies, Harold, et al., 2002; Davies & Sturge-Apple, 2007).

2. Interparental conflict and children's and adolescents' self-representations

As described above, exposure to interparental conflict, particularly when it is frequent, intense and poorly resolved, is a very upsetting life stressor for children and adolescents (Cummings & Davies, 2010; Grych & Fincham, 1990). In effect, the harmful effects of interparental conflict on multiple child and adolescent outcomes are well documented, such as internalizing and externalizing problems (e.g., Buehler et al., 2007; Cummings & Davies, 2002). However, less well understood are the effects of interparental conflict on other child and adolescent outcomes, such as self-representations (i.e., the set of attributes that individuals use to describe themselves; Harter, 2015). The self, and more specifically self-representations (SR), are social constructions that develop from an individual's birth, through experiences and interactions with close significant others, primarily parents or caregivers (Bowlby, 1969; Bretherton & Munholland, 2008; Cooley, 1902; Nurra & Pansu, 2009). Therefore, it is important to consider children and adolescent

experiences with interparental conflict in the study of self-construction, given the potential influence they can have on their representational patterns and SR.

Indeed, it is through the interactions that are established with caregivers, as well as through one's representations of them (constructed by observing their behaviour), that individuals build their SR (Lewis, 1990; Markus & Cross, 1990; Waniel, Besser, & Priel, 2008). Indeed, attachment and social-cognitive theories share the assumption that experiences in relationships with significant others are organized and modelled into internal schemas or representations (Baldwin, 1992; Bowlby, 1969; Bretherton & Munholland, 2008). These internal schemas not only guide individuals' subsequent interpersonal perception and functioning, but also significantly influence their SR (Manashko, Besser, & Priel, 2009; Waniel et al., 2008).

By the same token, interparental conflict is a particularly relevant family experience to consider in the study of children's and adolescents' self-representation construction. Given that it influences family interactions globally, it can have important effects on their representational patterns and, therefore, on their SR (Cummings & Davies, 2010; Grych & Fincham, 1990). Indeed, although still sparse, a few studies have demonstrated associations between exposure to destructive interparental conflict and negative overall child selfperceptions, with an emphasis in specific domains, such as academic and social competence. Generally, children in high-conflict homes are more likely to have more negative working models of family relationships and to view themselves and their social worlds in a more negative and hostile way (Grych, et al., 2003; Schermerhorn et al., 2008; Shamir et al., 2001). Exposure to violent interparental conflict has been associated with less positive representations of competence and obedience in pre-schoolers and school age children (Grych, Wachsmuth-Schlaefer, & Klockow, 2002). Likewise, Isabella and Diener (2010) found that anxiety about interparental conflict predicted negative SR of academic and social competence confidence in school aged children. Siffert et al. (2012) found significant associations between interparental conflict and decreased self-esteem and self-evaluations of scholastic competence in early adolescents.

Most studies focusing on the relation between interparental conflict and SR have been carried out with children, and, to our knowledge, only one with early adolescents. Thus, there is a dearth of studies with adolescents in this line of research. However, the inclusion of adolescents in this research field is a significant developmental stage for the study of SR

construction in the context of interparental conflict. Indeed, the formation of an enduring sense of self is a core developmental task for adolescents, stimulated and shaped by the multiple developmental changes occurring at the biological, social and cognitive level (i.e., formal abstract reasoning) (Harter, 2015; Lerner & Steinberg, 2009). Particularly, the development of new cognitive abilities, especially the greater capacity to think abstractly, are pivotal in the formation of a more coherent, sophisticated and abstract sense of self (Steinberg, 2013). As a result, as adolescents mature, their self-knowledge progressively become abstractions derived from their behaviours and experiences (e.g., Fisher & Bidell, 2006; McConnell, 2011). Indeed, based on this new ability, many of the SR that emerge in early adolescence are abstractions about the self, cognitively more complex (e.g., Fisher and Bidell, 2006; Flavell, 1985; Higgins, 1991). In this socio-cognitive perspective, self-concept is conceived as a multifaceted and hierarchical system, comprising sets of domain-specific SR, that becomes increasingly differentiated as individuals develop (e.g., Baumeister, 1998; Fiske & Taylor, 1991; Linville & Carlston, 1994; Oosterwegel & Oppenheimer, 2002).

These developmental changes in SR are in line with the findings of social-cognitive research on the study of the self (e.g., Baumeister, 1998; Fiske & Taylor, 1991; Linville & Carlston, 1994). In effect, some of the most advanced theoretical work about self-representation has concluded that self-knowledge is initially exemplar based, that is, composed of specific behavioural episodes (e.g., performing well on tests and homework; raise pertinent questions in classes), but becomes increasingly abstracted into trait summaries (e.g., intelligent) as individuals develop greater experience with a behavioural domain (McConnell, 2011).

In addition, with the increase of social cognition research on the study of the self (e.g., Baumeister, 1998; Fiske & Taylor, 1991; Linville & Carlston, 1994), self-concept is perceived as a multidimensional and dynamic system in which information about the self is organized in multiple contextual and domain-specific SR. These are built as individuals process information on their experience, and then stored in memory and integrated into the self-concept in an interconnected way (Epstein, 1990; Harter, 2015; Markus & Wurf, 1987; Markus & Cross, 1990; Oosterwegel & Oppenheimer, 2002; Showers, 1992). Therefore, one of the most used methods in the evaluation of SR consists of adjectives checklists and rating scales of how much a certain attribute describes oneself (Kihlstrom & Klein, 1994).

However, in research on the associations between interparental conflict and

child/adolescent SR, these have not been considered through this social-cognitive approach as cognitive structures, focusing on their specific cognitive content and domain specificity (e.g., Markus & Wurf, 1987; Oosterwegel & Oppenheimer, 2002). In fact, several relevant domains of SR have remained absent from this line of research. Given that self-concept is a multidimensional system (Harter, 2015), which becomes increasingly differentiated from childhood to adolescence (Harter, 2006a), and since SR in different domains are conceptually and statistically independent (e.g., Harter, 1988; McConnel, 2011), focusing predominantly on academic self-concept or measuring only global self-concept or global self-esteem ignores important variations in other important self-concept domains (e.g., social, emotional, physical appearance) (Putnick et al., 2008). Given the aforementioned cognitive-developmental advances that arise in adolescence, this conceptualization of SR is relevant in this line of research and a new contribution to this literature.

Indeed, along with the cognitive-developmental advances mentioned above (e.g., Damon & Hart, 1982), several other stage-salient biological and social changes shape the construction and organization of children's and adolescents' SR (Meeus, 2011). The marked changes in the body make physical appearance SR become progressively salient from childhood to adolescence (e.g., Harter, 2015). There is an increasing engagement in new social contexts with changes in social expectations (Harter, 2015), as well as an increasing striving for a sense of autonomy, control, competence and mastery (Bandura, 1997; Zimmer-Gembeck & Collins, 2003). As these changes occur, children and adolescents must cope with normative challenges and stressors (e.g., transition to middle school in early adolescence, and preparation for high school in middle adolescence) (e.g., Jacobs et al., 2003) with a simultaneous normative decrease in support and guidance from parents (e.g., Laursen & Collins, 2009). Namely during school transitions, they may experience dips in academic performance, changes in their social circles, lower satisfaction with physical appearance, and increased behavioural problems (Steinberg, 2013). This process is, thus, accompanied by an increasing multiplicity of different expectations and possibilities in defining who they are in the behavioural, social and emotional domains (Jacobs et al., 2003).

Stress from exposure to interparental conflict may add special difficulty to this process (Fosco & Feinberg, 2015). Moreover, compared to younger children, pre-adolescents and adolescents seem to be more attuned to the emotional expressions in their evaluations of interparental conflict (Davies et al., 1996). This increased sensitivity to interparental conflict,

along with the stage-salient developmental tasks and changes described above, may increase vulnerability to interparental conflict (Davies, Forman, Rasi, & Stevens, 2002; Cummings et al., 2006; Cummings, George, McCoy, & Davies, 2012). This increased susceptibility might have important consequences for their SR construction process. Thus, assessing several relevant SR domains is important in order to obtain a clearer picture of the specific associations between interparental conflict and children's and adolescents' SR.

2.1. An emotional security perspective to understanding the relation between interparental conflict and children's and adolescents' self-representations

Despite the already documented associations between interparental conflict and children's and adolescents' SR, little is known about the processes that explain that relation. Specifically, no studies have yet been conducted focusing on analysing the role of emotional insecurity in that relationship. As mentioned above, process-oriented research about the consequences of interparental conflict on child and adolescent outcomes has been largely grounded on the emotional security theory (EST; Cummings & Davies, 2010), which posits that exposure to destructive interparental conflict increases the risk of negative child/adolescent outcomes through two main pathways: 1) by increasing their emotional insecurity in the interparental relationship - i.e., heightened emotional reactivity, negative representations of interparental conflict, and excessive regulation of exposure to the conflict, and 2) by undermining features of the parent-child relationship (Cummings & Davies, 2010; Davies & Cummings, 1994).

Consistent with attachment theory (Bowlby, 1969), EST holds that differences in children's abilities resort to their parents as sources of security have important implications for their adjustment. However, EST broadens the attachment theory notions to other family systems, particularly to the interparental system, holding that the harmful effects of those relational experiences occur through pathways involving both the parent-child and the interparental systems.

In addition, being firmly grounded on attachment theory (Cummings & Davies, 2010), EST emerges as promising framework for a process oriented approach to the study of the association between interparental conflict and children and adolescent's SR. Indeed, both attachment theory and EST emphasized the cognitive processes of "internal working models", calling attention to the fact that relationship experiences with the parents over time

(e.g., emotional responsiveness, exposure to interparental conflict) lead to generalized expectancies regarding the self, the world, and others. In addition, both theories posit that these internal working models work as explaining mechanisms (i.e., mediate) of relations between children's and adolescents' experiential histories in both the parent-child and interparental subsystem and their outcomes.

2.1.1. Emotional insecurity in the interparental relationship as an explaining mechanism

As described previously, according to EST, the maintenance of a sense of protection and security in the interparental relationship is central for children and adolescents, especially in the context of interparental conflict. As such, EST posits that exposure to destructive interparental conflict increases the risk of negative outcomes in development by undermining their emotional security in the interparental relationship. This process translates into higher levels of the three main response processes: 1) emotional reactivity (i.e., negative emotional responses to interparental conflict, such as sadness, fear and anger); 2) negative representations of the interparental relationship (i.e., negative expectations regarding the conflict's consequences for themselves and/or the family); and 3) excessive regulation of their exposure to interparental conflict (i.e., attempts to intervene in or to limit their exposure to conflicts between parents). There is a consensus in current theory and research in that the meaning of conflicts can be most clearly discerned from the multiple dimensions of children's responses, including emotional, behaviour and cognitive reactions to conflict behaviours (Davies & Cummings, 1994; Harold et al., 2004).

Concerning emotional reactivity, research has clearly demonstrated that children react to interparental conflict with elevated levels of fear, distress, and anger across multiple response domains (Cummings & Davies, 2010). According to the emotional security hypothesis, difficulties of regulating intense vigilance and distress reflect underlying insecurity that may increase children's risk for disturbances in more pervasive domains of psychological functioning (Cummings & Davies, 1996; Davies & Cummings, 1998). Consistent with this mediational model, high levels of distress in response to parental conflict have been shown to predict both externalizing and internalizing symptoms (e.g., Cummings, Goeke-Morey, & Papp, 2003; Davies & Cummings, 1998).

Regarding children's behavioural responses to interparental conflict, these responses

have been conceptualized both in terms of involvement or over-regulation responses (mediation, comforting, distraction) and avoidance (distancing, escape, inhibition) and highlights two of the primary ways in which children attempt to preserve emotional security by engaging or disengaging from family stress (Cummings & Davies, 2002; Cummings & Davies, 2010; Davies & Cummings, 1994). Involvement responses include behaviours such as trying to end or solve the conflict, interact physically with parents during the conflict, or to seek to comfort parents (Fosco & Grych, 2008). Far from being an adaptive coping response, strategies that involve children in conflict have been associated with increased internalizing symptoms and externalizing problems (e.g., Davies, Forman, et al., 2002). Avoidance responses, on the other hand, include behaviours through which children actively try to avoid the conflict between their parents when they realize it's occurring (Fosco & Grych, 2008). As Kerig (2001) suggests, avoidance may be helpful in the first instance by removing children from the immediate threat posed by conflict, but its habitual use may hinder the development of more constructive coping strategies.

Finally, the emotional security hypothesis holds that exposure to destructive forms of interparental conflict (i.e., conflict characterized by high levels of hostility and withdrawal, low levels of support, and difficulties in resolving the conflict) increases the risk of the development of psychological problems in children, by generating insecure internal representations of the interparental relationship (Cummings & Davies, 2010; Davies & Cummings, 1994). These may include concerns about whether problems in the interparental relationship will be prolonged in time, and expectations of growing parent's difficulties in solving their problems. These insecure representations of the interparental relationship, in turn, may preclude later adjustment problems in children as they start to rely on these expectations as guides to interpret other new or challenging interpersonal contexts and relationships (Davies, Winter, & Cicchetti, 2006; Sturge-Apple, Davies, Winter, Cummings, & Schermerhorn, 2008).

Although a large body of research has consistently supported the mediating role of emotional insecurity in associations between interparental conflict and several child and adolescent outcomes (e.g., Buehler et al., 2007; Davies & Cummings, 1998; Rhoades, 2008), SR have remained absent from this body of literature. However, given that SR can be abstracted from one's own reactions to past events and experiences (Sebastian, Burnett, & Blakemore, 2008), adolescents' ability to regulate the distress associated with negative social

experiences is important in their self-concept development. Specifically, regarding experiences with interparental conflict, in line with EST, previous research found that children's and adolescents' self-evaluations of social and academic competence were associated with their anxiety regarding interparental conflict - that is, with their concerns related to the meaning of interparental conflict and perceptions of stability of the interparental relationship (Isabella & Diener, 2010; Siffert et al., 2012).

2.1.2. Parent-child relationship dimensions as explaining mechanisms

Previous research has provided consistent support for the first main pathway, that is, for the mediating role of emotional insecurity in associations between interparental conflict and multiple child and adolescent outcomes, including self-related ones such as self-esteem problems (e.g., Rhoades, 2008). However, research is lacking on the analysis of those associations through the second main pathway, that is, on examining the intervening role of dimensions of the parent-adolescent relationship. In effect, according to the spillover hypothesis (Erel & Burman, 1995), positive parent-child relationships are likely to be hindered in the presence interparental conflict. The term spillover refers to a transfer of mood, affect, or behaviour from one setting or relationship to another (Repetti, 1987). Applied to the family system, this process involves that feelings that were instigated in the marital subsystem are expressed in the parent-child subsystem (Easterbrooks & Emde, 1988). This can occur through four main mechanisms: 1) "detouring", in which the negative feelings experienced in the marital relationship are expressed in relation to the child/adolescent; 2) modelling, in which dysfunctional interactions between parents elicit or exacerbate similar interactions in the parent-child relationship; 3) socialization, in which parents experiencing marital conflict tend to adopt less optimal parenting techniques; and 4) family stress and role strain, in which parents under marital stress are less emotionally available to responsively monitor and respond to their children's needs (for a review, see Erel & Burman, 1995).

Thus, the spillover hypothesis posits that the negative emotions and overall stress stemming from marital problems spillover to the parent-child relationship, weakens parents' ability to maintain adequate and positive relationships with their children through adequate supervision, warmth, support, open communication and structure, which in turn can have a harmful impact on child/adolescent outcomes (Cummings & Davies, 2010). The direction of these effects between interparental conflict and various aspects of the parent-child

relationship (e.g., relationship quality; warmth) have been consistently supported by various longitudinal studies (Krishnakumar & Buehler, 2000).

From late childhood and early adolescence onwards, this issue gains special relevance, given that, starting around these phases, parents and their children need to adjust their relationship due to the normative increase in children's striving for a sense of autonomy, control, competence and mastery in this developmental period (Zimmer-Gembeck & Collins, 2003). The negotiation process of emancipation often leads to an increase in parent-child conflict experiences (Collins & Laursen, 2004). Throughout this process, early adolescents are also faced with a broad range of developmental changes, at the cognitive, social and physical levels (Harter, 2015), and an increase in normative stressors (e.g., school transitions) (e.g., Jacobs et al., 2003), at the same time as parental support and guidance decreases (Laursen & Collins, 2009). Therefore, parents' ability to successfully manage the balance between their children's increasing strives for autonomy and simultaneous need of parental support and guidance are determinant to the maintenance of adaptive parent-child relationships and, thus, to a healthy and secure emancipation from parents (Soenens et al., 2007). Interparental conflict may hinder the achievement of such balance, by undermining parents' ability to interact adequately with their children, which potentially reduces children's perceptions of support provided by the parent-child relationship (Forehand, Biggar, & Kotchick, 1998).

All these developmental and parent-child relationship challenges taken together may increase children's and adolescents' vulnerability to the harmful effects of interparental conflict (Cummings et al., 2012), and significantly affect their self-representation construction process. Indeed, the formation of an enduring sense of self is a core developmental task for children and adolescents in this development period, stimulated and shaped by the multiple developmental changes occurring at the biological, social and cognitive level (i.e., formal abstract reasoning) (Lerner & Steinberg, 2009). Particularly, the development of new cognitive abilities, especially the greater capacity to think abstractly, are pivotal in the formation of a more coherent, sophisticated and abstract sense of self (Steinberg, 2013). As a result, as children mature, their self-knowledge progressively takes the form of abstractions derived from their behaviours and experiences (e.g., Fisher & Bidell, 2006; McConnell, 2011). In this socio-cognitive perspective, self-concept is conceived as a multifaceted and hierarchical system, comprising sets of domain-specific SR, that become

increasingly differentiated as individuals develop (e.g., Baumeister, 1998; Fiske & Taylor, 1991; Linville & Carlston, 1994; Oosterwegel & Oppenheimer, 2002).

The relational contexts that parents provide their children have a fundamental influence on their self-development (Dusek & McIntyre, 2003) given that they can stimulate children's and adolescents' exploration of self-options and encourage meaningful commitments and identity choices (Scabini & Manzi, 2011). Research has highlighted the importance of children's and adolescents' perception of their relationship with their parents in shaping their SR, in which more negative perceptions of the relationship with the primary figures are associated with more negative SR (e.g., Putnick et al., 2008). Consistent with the symbolic interactionism perspective described above, children and adolescents who perceive their parents as supportive are likely to think that their parents have positive representations of them (Openshaw & Thomas, 1990). In contrast, those who perceive their parents as highly critical or low in support are likely to perceive and internalize negative symbolic meanings of themselves (Conger, Conger, & Scaramella, 1997) and thus develop more negative SR.

Yet, to our knowledge, only two studies focused on examining facets of parent-child relationships as mediators of the link between interparental conflict and self-related outcomes, such as self-esteem and perceptions of scholastic competence (e.g., Siffert et al., 2012). These studies have considered dimensions of parenting style or quality (e.g., psychological control; behavioural control; warmth; authoritarian parenting; supervision), but research is lacking on the mediating role of other relevant dimensions of the parent-child relationship such as children's and adolescents' perceptions of support (e.g., companionship, affection, intimacy), and of negative interactions (e.g., conflict, antagonism), which are key dimensions of parent-child relationships, especially given that in this developmental period both parents and their children need to adjust their relationship due to the normative process of adolescents' individuation from parents and increasing autonomy (De Goede, Branje, & Meeus, 2009).

Certainly, support from parents in the form of shared activities, emotional ties and intimacy (Furman & Buhrmester, 1985) provide a secure base to their children's exploration of the world outside the family and engagement in new social relationships (Collins & Laursen, 2004), and has been found to predict positive self-perceptions of competence and self-esteem (e.g., Peixoto, 2012). Conflict is also a fundamental aspect in parent-child relationships, given the need to integrate different objectives and expectations in the

separation-individuation (Zimmer-Gembeck & Collins, 2003). Given that self-development often occurs concomitantly with parent-child conflict (Missotten, Luyckx, Branje, Vanhalst, & Goossens, 2011), difficulties in conflict managing may be detrimental to children's and adolescents' self-construction. Indeed, negative interactions in parent-child relationships (e.g., conflict, criticism) have been found to be associated to worse academic self-concept (Putnick et al., 2008).

However, several relevant domains of children's and adolescents' SR have remained absent from this line of research. Given that self-concept is a multidimensional system (Harter, 2015), which becomes increasingly differentiated from late childhood onwards (Harter, 2006a), and since SR in different domains are conceptually and statistically independent (e.g., Harter, 1988; McConnel, 2011), focusing predominantly on academic selfconcept or measuring only global self-concept or global self-esteem ignores important variations in other important self-concept domains (e.g., social, emotional, physical appearance) (Putnick et al., 2008). Indeed, along with cognitive-developmental advances mentioned above, several other stage-salient biological and social changes shape the construction and organization of children's and adolescents' SR (Meeus, 2011). The marked changes in the body make physical appearance SR very salient (e.g., Harter, 2015). In addition, along with the progressive emancipation from parents and increased engagement in new social contexts, children and adolescents are confronted with a multiplicity of different expectations and possibilities in defining who they are in the behavioural, social and emotional domains (Jacobs et al., 2003). Namely during school transitions, they may experience dips in academic performance, changes in their social circles, lower satisfaction with physical appearance, and increased behavioural problems (Steinberg, 2013). Thus, assessing several relevant SR domains is important to obtain a clearer picture of the specific associations among interparental conflict, children's and adolescents' perception of their relationship with their parents and their SR.

This line of research has typically focused on the mother-child relationship or has collapsed mothers and fathers into a parent-child relationship variable (Siffert et al., 2012). However, research has documented differences between mothers' and fathers' roles in the life of their children (Day & Padilla-Walker, 2009). Therefore, the nature of children's and adolescents' perception of their relationship with their mothers and fathers may differ (Marceau et al., 2015). For example, research suggests that mother-child relationships are

typically more intimate, while father-child relationships are more playful and involve more leisure activities (Videon, 2005). Also, several studies have suggested that mothers are closer to their children and more important support providers than fathers (Seiffge-Krenke, Overbeek, & Vermulst, 2010). However, little is known of whether discrepancies in the mother-child and father-child relationships may be differentially associated with children's and adolescents' SR, and no study so far has examined the mediating role of children's and adolescents' perceptions of their relationship with both parents in the link between interparental conflict and their domain-specific SR.

In addition, the few available studies analysing children's and adolescents' relationship with both parents report that mother's and father's roles on their children's outcomes are often dependent upon the gender of the child/adolescent (Day & Padilla-Walker, 2009). Regarding self-related outcomes, some research has shown that associations between parent-child relationships with self-related issues may be different for girls and boys (e.g., Plunkett et al., 2007), whereas other research has shown that the pattern of those associations hold across gender groups (e.g., Crocetti, Branje, Rubini, Koot, & Meeus, 2017; Luyckx, Soenens, Vansteenkiste, Goossens, & Berzonsky, 2007). Nevertheless, previous research has shown gender differences in children's and adolescents' perceptions of their relationship with their parents (e.g., Furman & Buhrmester, 1992), and self-concept measures have also indicated consistent sex differences in adolescents' SR - girls typically evaluate their social and language abilities as higher than boys, while boys evaluate their physical and mathematical abilities, as well as their appearance more positively than girls (e.g., Harter, 2015). Although self-concept researchers note that the amount of variance may be small (Marsh, 1989), child/adolescent gender may be important to consider as a potential moderator of associations between and among interparental conflict, perceived relationship with both mother and father and adolescent SR.

II. Goals and Hypotheses

A first goal of this study is to adapt and validate the Security in the Interparental Subsystem scale (SIS; Davies, Forman, et al., 2002). This instrument was designed to assess children's and adolescents' reports of how they strive to maintain emotional security in the context of interparental conflicts, in an effort to overcome the scarcity of measurement batteries that assess emotional security. In the last decade, the SIS scale has been widely used

in process-oriented research on the consequences of interparental conflict on child and adolescent adjustment outcomes, because of its potential in identifying their patterns of responses to interparental conflict. These studies have been conducted in the U.S. with similar samples: mostly Caucasian Americans, within the 9 to 15 age range (e.g., Davies & Forman, 2002; Buehler et al., 2007; Sturge-Apple, Davies, Martin, Cicchetti, & Hentges, 2012; Keller & El-Sheikh, 2011; Cook, Buehler, & Blair, 2013; Kelly & El-Sheikh, 2013). However, to our knowledge, no research has yet been conducted on the factor equivalence of the SIS across cultures. Given that socialization processes, family values, and parenting practices may differ from one culture to another, such research is necessary to identify similarities and differences in the SIS factor structure. This way, researchers could carry out more refined comparisons and discussions of the results found in different countries, and cross-culturally investigate the relationships between the SIS dimensions and other variables. The absence of a validated and culturally appropriate measure of children's and adolescents' emotional security in the interparental relationship constitutes an important gap both in research and clinical settings. Without such measures, there is no opportunity for researchers to replicate basic research that examines the role of children's and adolescents' emotional security in the relationship between interparental conflict and its consequences on their adjustment. Likewise, it is also difficult for clinicians to adequately assess the impact of treatment for Portuguese children and adolescents exposed to destructive interparental conflict. Therefore, in this study we will address this gap by examining the factor validity of the SIS scale on a sample of Portuguese children and adolescents.

As a second goal, this study extends past work by examining the role of emotional insecurity and of children's and adolescents' perceived relationships with both parents in the association between interparental conflict and children's and adolescents' SR. Thus, it expands the scope of children and adolescent outcomes linked with interparental conflict in process-oriented research guided by the EST. In addition, existing evidence of associations between a better family functioning and different dimensions of self-concept (Noller, 1994) suggests that this line of research should also account for the multidimensional nature of SR (e.g., Harter, 2015). Therefore, this study also extends previous literature by considering, simultaneously, different relevant specific SR domains – instrumental, social, emotional, intelligence, physical appearance, and opposition (Martins, 2013; Silva, Martins, & Calheiros, 2016).

Regarding the role of emotional insecurity, this construct has been mostly analysed as a higher order latent variable reflecting multiple dimensions. Although some degree of interdependence is expected between them, each dimension is also assumed to represent distinctive aspects of emotional insecurity (Cummings & Davies, 2010). In effect, the value of research designed to examine the mediating role of multiple response processes to comprehensively test EST - for instance, through multi-mediator models - has been previously emphasized by these authors, who consider it to be a fruitful direction for this line of research (Cummings & Davies, 2002). Accordingly, another goal of the present study was to analyse children's and adolescents' emotional, cognitive, and behavioural reactions as potential mediators between interparental conflict and several domains of adolescents' SR. Therefore, by exploring the specific role of the different dimensions of emotional insecurity, emphasizing its multidimensional nature, this study also adds to research on EST.

Grounding on the theoretical framework presented above, it was expected that higher levels of interparental conflict would predict increases in adolescent emotional insecurity, which, in turn, would predict less favourable SR. In addition, basing on existing evidence on associations among interparental conflict, emotional insecurity, and self-related outcomes presented above (e.g., Isabella & Diener, 2010; Siffert et al., 2012), we expected to find associations between children and adolescent emotional insecurity and instrumental, intelligence, social, emotional, and opposition SR. Physical appearance SR, on the other hand, might at first sight seem little related to these emotional processes. However, physical appearance SR are a highly salient domain of self-concept in adolescence, with the highest correlations with adolescents' overall self-worth (Harter, 2000, 2015). In addition, previous research has found significant positive associations between the perceived quality of relationships within the family and physical appearance self-concept in adolescents. This evidence suggests that the perception of better relationships within the family can lead to the construction of a better physical self-image (Harter, 1993, 2000, 2015). Therefore, the realm of physical appearance should not be neglected in process oriented research on associations between interparental conflict and children's and adolescents' SR via their emotional insecurity.

Moreover, given that socialization process, family values, and parenting practices may differ from one culture to another (Parke, 2000), the cultural context of this study may also contribute to extend understanding of emotional security and process models of

interparental conflict and adolescent outcomes. Most studies about the interrelations between interparental conflict and children's and adolescents' response processes and adjustment outcomes have been conducted with middle-class European American families (Lindahl, Malik, Kaczynski, & Simons, 2004). However, intercultural differences regarding the acceptability of interparental conflicts or what is considered appropriate interparental behaviours may account for differences in children's and adolescents' patterns of emotional insecurity across different cultures. In Portuguese people, as a traditionally collectivist culture, individuals are expected to identify with family values, strive to maintain cohesion and the status quo, and restrain behaviours that might disrupt the traditional order (Hofstede, 2001).

In effect, education and socialization patterns in Portugal have been traditionally oriented to the enhancement of obedience and respect towards intergenerational differentiation and hierarchical roles (Rodrigues, 1994). These imbalances in power within family members, being culturally congruent (Lindahl et al., 2004), may be less likely to cause distress in family function and lead to more passive behaviours in children and adolescents when facing interaction with and between adults. In addition, in Latino families – with which Portuguese families share many values and beliefs, particularly regarding the primacy of the family unit (Taylor, 1996) – behaviours such as not challenging elders' point of view and not interrupting adults are considered more appropriate interactions with adults, and represent the value of respeto that specifically teaches children about how they should refer to adults in the family (Valdés, 1996). Therefore, although interparental conflict is expected to cause emotional distress, by violating the expectations of family harmony and threatening the stability of the family unit (Hernández, Ramírez Garcia, & Flynn, 2010; Kuhlberg, Peña, & Zayas, 2010), the cultural tendency to passivity and respect for authority may prevent children's and adolescents' displays of behavioural reactions that violate the *respeto* cultural norm. Thus, in the present study, it could be expected to find a more expressive intervening role of emotional and cognitive reactions linking interparental conflict to children's and adolescents' SR, as compared to behavioural reactions. The clarification of potential differences between associations linking interparental conflict, emotional insecurity dimensions and SR, related to cultural aspects, may provide important clues to improve intervention strategies with children and adolescents and parents in the context of interparental conflict in this population.

As a complement to this goal, in this study we also analysed children's and adolescents' perceptions of their relationships with their parents, in terms of negative interactions and support, as mediators linking interparental conflict to their SR. Based on the theoretical background outlined previously, it was expected that interparental conflict would predict lower levels of perception of support and higher levels of negative interactions in both the mother-child and father-child relationship, which, in turn, would be associated to less favourable SR in different domains. Furthermore, based on the existing evidence on the differences between the role of mothers and fathers (Videon, 2005) we included both parents in the study and examined children's and adolescents' perception of the mother-child and father-child relationships as mediators of the link between interparental conflict and adolescents' SR in separate models. Many studies have documented that adolescents typically have a closer relationship with their mother than with their father (Seiffge-Krenke et al., 2010). In addition, in Portugal, despite recent policy shifts and growing numbers of fathers caring for young children, gender equity in family life remains uneven and proceeds in different ways and rates across families, generations, and social classes. Men's involvement in private life has been much slower to evolve, especially among older age groups and those with lower educational levels. Although the gender gap between mothering and fathering has decreased, the actual time division of housework and care between men and women is still unequal. In Portugal, although fathering has evolved, in policies' norms, from a dominant model emphasizing the role of men in families as distant, provider, and authoritarian father figures toward a model highlighting the role of men as caregiving, close fathers who support or share parental routines and responsibilities, norms and practices still reveal gender inequalities (Wall, 2015). Therefore, we expected to find a more prominent role (i.e., more unique contributions) of the dimensions of the mother-child relationship as compared to father-child relationship. In addition, based on existing evidence of differences in perceptions of parent-child relationships and SR domains, we tested whether associations between interparental conflict and children's and adolescents' SR through their perceptions of their relationship with both parents were moderated by child/adolescent gender.

III. Empirical evidence

Overview

In this section, we will present the empirical evidence regarding the research goals presented above. Thus, following the presentation of the study methodology, including the description of the participants, measures, study procedure, and statistical analyses, the results presentation will be divided in two parts. In first part the results regarding the adaptation of the SIS scale to a Portuguese sample, specifically concerning the language adaptation and the analysis of its internal structure and validity, will be presented. In the second part, we will present the results of the analyses testing the two pathways proposed by the emotional security theory with children's and adolescent' SR as outcome variables: 1) children's and adolescents' signs of emotional insecurity as mediator in the relation between interparental conflict and their domain-specific SR, and 2) children's and adolescents' perceptions of their relationship with their parents as mediators of that association.

1. Methodology

1.1. Participants

Data was collected from children and adolescents, fifth to ninth graders, recruited from six public schools. A total of 360 children and adolescents were invited to take part in the study, of which 276 (76.7%) agreed to participate and had their parents' informed consent. Of the 276 participants, 21 (7.6%) were excluded from the analysis due to non-cohabitating with both mother and father, or substitutes, for at least two years. The final pool of participants consisted of 255 children and adolescents (60.0% girls), fifth to ninth graders, ranging in age from 10 to 18 years old ($M_{\rm age}$ =13.66 years, SD=1.69). Most participants (233) lived with both biological parents (91.2%); 16 (6.3%) had lived with their mother and a stepfather/mother's boyfriend/partner for more than 2 years; 3 (1.2%) with their father and a stepmother/father's girlfriend/partner for more than two years; and 3 (1.2%) lived with other parenting figures who assumed the role of parents (aunt and uncle; grandparents; godparents).

In addition, thirty two class director teachers (i.e., homeroom teachers), one for each class of students from which participants were recruited, also participated in this study by completing the Teacher Report Form (TRF, Achenbach & Rescorla, 2001; Achenbach et al., 2014) to evaluate children's and adolescents' internalizing and externalizing problems in the

school context. Teachers completed the TRF for 67.2 % of the participating children and adolescents. Regarding the length of time of contact with the students: for 10.4% of the participants, teachers reported to have had less than a year of contact; for 43.5%, between one and 2 years; for 30.5%, 2 years; for 10.4% 3 years; for 3.2% 4 years; 0.6% 5 years; and for 0.6%, 6 years. As for the teachers' level of knowledge about the students: 83.8% teachers reported to know them "reasonably well"; 10.4% "very well"; and 5.8% "not very well". On average, teachers spent 5.4 weekly periods of 45 minutes (i.e., teaching periods) with the students (min=1; max=8).

1.2. Measures

1.2.1. Interparental conflict

Exposure to interparental conflict was assessed using the Conflict Properties scale from the Children's Perceptions of Interparental Conflict Questionnaire (CPIC; Grych et al., 1992; Sani, 2006). This scale consists of 19 items, answered on a 3-point scale (0-false, 1-sort of true; and 2-true). In the light of the theoretical focus on the participants' exposure to destructive conflict, and following the procedure used in previous studies (e.g., Davies, Forman, et al., 2002; DeBoard-Lucas, Fosco, Raynor, & Grych, 2010; Fosco & Grych, 2008), the 19 items were summed up to form a composite. Scores on the Conflict Properties scale could range from 0 to 38. Higher values represent more frequent, intense, and poorly resolved conflict. The Conflict Properties subscale has shown good internal consistency and good test – retest reliability (Grych et al., 1992). In previous studies using this scale, internal consistency has ranged from .87 to .91 (e.g., DeBoard-Lucas et al., 2010; Fosco & Grych, 2008; Simon & Furman, 2010). Internal reliability of the 19 items in the present sample was very good (Cronbach's Alpha = .88).

1.2.2. Emotional insecurity

Children's and adolescents' emotional insecurity was evaluated through the Security in the Interparental Subsystem Scale – Child Report (SIS; Davies, Forman, et al., 2002), adapted and validated on a sample of Portuguese children and adolescents (Silva, Calheiros, & Carvalho, 2016b). An important advantage of this measure is its ability to assess multiple response domains of emotional insecurity (Davies, Forman, et al., 2002). The updated original version of the SIS (Davies, Forman, et al., 2002; Cummings & Davies 2010) consists

of 43 items, 35 of which are organized into seven subscales: Emotional Reactivity (e.g., 'When my parents have an argument, I feel sad'), Behavioural Dysregulation (e.g., 'When my parents have an argument, I hit, kick, or slap people in my family'), Constructive Family Representations (e.g., 'When my parents argue, I know that everything is going to be okay'), Destructive Family Representations (e.g., 'I worry about my family's future'), Conflict Spillover Representations (e.g., 'I feel caught in the middle'), Avoidance (e.g., 'I try to be really quiet'), and Involvement (e.g., 'I try to distract them by bringing up other things'). Davies, Forman and colleagues (2002) evaluated the validity of these seven subscales, performing an exploratory factor analysis (EFA; maximum likelihood and *oblimin* rotation) and a confirmatory factor analysis (CFA, maximum likelihood estimation) on two different samples of children and adolescents (9 to 14 years old), mostly Caucasian (approximately 82 %). They also tested the internal consistency of the seven subscales and a test-retest correlation over a two-week interval that exceeded .70 for every subscale, except Behavioural Dysregulation. The adaptation and validation of this instrument in the context of the present study will be presented in detail below.

1.2.3. Self-representations

Self-representations were measured with the Self-Representation Questionnaire for Adolescents (SRQA; Martins 2013; Silva et al., 2016¹), consisting of 18 attributes (10 positive - e.g., happy, intelligent; and 8 negative - e.g., sad, lazy), in which children and adolescents rate themselves on a 5-point scale, from 1 (I am not at all like this) to 5 (I am exactly like this). Regarding the development of this measure, two procedures were used for the attribute identification: word frequency lists (e.g., school book's word frequency) and an open-ended questionnaire. Additionally, to select the attributes, two criteria were adopted: 1) frequency, that is, the selection of attributes more often mentioned, and 2) identification of an equivalent number of positive and negative attributes, followed by the analysis of the attributes' relevance and valence. SRQA comprises six factors: instrumental (five items; e.g., responsible; factor loadings between .25 and .83); social (four items; e.g., nice; factor loadings between .62 and .72); emotional (three items; e.g., angry; factor loadings: .42 and

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¹ The analysis of the psychometric properties of the SRQA resulted in the following publication: Silva, C. S., Martins, A. C., & Calheiros, M. M. (2016). Development and Psychometric Properties of the Self-Representation Questionnaire for Adolescents (SRQA). *Journal of Child and Family Studies*, 25(9), 2718–2732. (IF = 1.386; SJR Quartile 1).

.60); physical appearance (two items; e.g., pretty; factor loadings: .68 and .91); intelligence (two items; e.g., intelligent; factor loadings: .74 and .89); and opposition (two items; e.g., stubborn; factor loadings: .49 and .99). The negative attributes are reverse-scored. Higher values in each dimension represent more favourable SR. The internal consistency of these dimensions was assessed through the same procedure described for the SIS scale and was considered acceptable: instrumental (α = .65), social (α = .76), emotional (mean inter-item correlation = .63); intelligence (mean inter-item correlation = .66); and opposition (mean inter-item correlation = .49). In the SRQA development study, internal consistency was comparable: instrumental (α = .74); social (α = .75); emotional (mean inter-item correlation = .39); physical appearance (mean inter-item correlation = .62); intelligence (mean inter-item correlation = .58); and opposition (mean inter-item correlation = .47). A CFA, with the present sample, using AMOS (v. 20; Arbuckle, 2011) supported the original structure, providing a good model fit (Hu & Bentler, 1999; Schreiber, Nora, Stage, Barlow, & King, 2006): χ^2 (210) = 178.990, p < .001; χ^2/df = 1.724; CFI = .92; RMSEA = .06; SRMR = .07.

1.2.4. Parent-child relationship perception

Children's and adolescents' perceptions of their relationship with their parents were measured with the Network of Relationship Inventory (NRI) – Social Provisions Version (NRI – SPV) (Furman & Buhrmester, 1985), which measures children's and adolescents' perceptions of their close relationships, namely with their parents. Participants rated their relationships with their mother and father (or their substitutes) based on 27 items, using a 5 point Likert scale, from 1 (none/not at all) to 5 (very much, almost always). The 27 items form nine conceptually distinct first-order factors (each composed by three items) that further load onto two second-order factors: (a) Support (composed by the Affection, Reliable Alliance, Enhancement of Worth, Intimacy, Instrumental Help, Companionship, and Nurturance first other factors) and (b) Negative Interactions (composed by the Conflict and Antagonism first other factors). The NRI has been used with youths from second graders to college students in several countries (e.g., USA, Brazil, Costa Rica). Both factors have shown good internal consistency ($M \alpha = .81$) (e.g., Connolly & Konarski, 1994; Furman & Buhrmester, 1992; Van Horn & Marques, 2000), and good test-retest reliability with correlations after a month ranging between 66 and .70 (Connolly & Konarski, 1994). Internal

consistency (*Cronbach's Alpha*) of the support and negative interaction factors in the present sample was good (respectively, α = .93 and α = .86 for the mother-child relationship, and α = .94 and α = .90 for the father-child relationship). A CFA, with the present sample, using AMOS (v. 20) (Arbuckle, 2011) supported the original structure, providing a good model fit (Hu & Bentler, 1999; Schreiber et al., 2006) in both the mother-child [(χ^2 (314) = 601.444, p < .001; χ^2/df = 1.915; CFI = .91; RMSEA = .07; SRMR = .06)] and father-child [(χ^2 (310) = 601.102, p < .001; χ^2/df = 1.939; CFI = .92; RMSEA = .07; SRMR = .07)] relationship models.

1.2.5. Internalizing and Externalizing School Behaviour

The teachers completed the internalization and externalization scales of the Teacher Report Form (TRF, Achenbach & Rescorla, 2001; Achenbach et al., 2014), a scale designed to assess behaviour problems and social competence among children and adolescents. The internalizing factor reflects the more self-directed behaviour problems, including depression, anxiety, withdrawal, and somatic complaints. The externalizing score reflects other-directed behaviours: the opposition and aggressive behaviour subscales. The items are scored by the teacher on a scale of 0 ("not true for child") to 2 ("very often true for the child"). In this study, internal reliability was excellent for the externalizing scale (α =.95) and good for the internalizing scale (α =.82) (Kline, 2000). Evidence for the validity of the TRF has been provided by a large amount of studies developed in several countries (Achenbach et al. 2008). Namely, different kinds of analysis (e.g., covariance, multiple regressions) have shown that scores on the internalization and externalization TRF scales are significantly higher for clinically referred than non-referred children and adolescents, after controlling for several demographic variables (e.g., age, gender, socio-economic status) both in US and European samples (Achenbach et al. 2008). Also, significant interrelations have been consistently found between corresponding scales of the TRF scales and Conners' (1997) instruments (Achenbach & Rescorla 2001).

1.3. Procedure

This study was approved by the ethics commission of ISCTE-IUL - University Institute of Lisbon and by the Ministry of Education (Madeira Regional Direction of Education). Permission to conduct the study was requested from all the district's schools

comprising 5th to 9th grade. Six schools (31.6%) agreed to collaborate in the study. Then, in each school, a set of classes was randomly selected to participate. Teachers collaborated in the data collection process by making their classroom available, and consent forms were sent to all parents, asking permission for their sons/daughters to participate in a study about the influence of everyday family life and conflict in the way children and adolescents think of themselves, via a closed letter that was subsequently delivered at the school. Most parents (76.6%) gave their consent for their sons/daughters' participation in the study. Questionnaires were group administered in a classroom setting. At the start of the assessment, participants under 12 years old gave their informed assent, and participants aged 12 and older were asked to sign a consent form. All participants with parental consent provided informed assent/consent. They were told that their participation was voluntary and that they could choose not to participate if they desired. Participants' anonymity was guaranteed, and they were assured that information would be used only for research purposes.

1.4. Data analyses

1.4.1. Instrument validation analysis

The data analysis was conducted by IBM-SPSS Statistics 20.0 and AMOS 20.0 (Arbuckle 2011). The construct validity was tested with a holdout method, performing firstly an Exploratory Factor Analysis (EFA), followed by a Confirmatory Factor Analysis (CFA). The reliability was analysed through Cronbach's Alpha. The concurrent validity was tested correlating the SIS and the internalization and externalization scales of the TRF (Achenbach & Rescorla, 2001; Achenbach et al., 2014). The discriminant validity was assessed through a linear regression.

1.4.2. Model tests

The mediating role of emotional insecurity. To test the mediation model, Structural Equation Models (SEM) analyses were conducted using Analysis of Moment Structures (AMOS, v. 20; Arbuckle, 2011) with bootstrap estimation. Residual variances among 5 pairs of manifest indicators, each belonging to the same latent factor (2 in emotional reactivity and 3 in instrumental SR) were allowed to correlate based on the modification indices and theoretical interpretability. Multiple indices of fit were examined to determine the adequacy of the model to the data: the relative χ^2 index (χ^2 /df) values ≤ 2 (Arbuckle & Wothke, 1999);

the comparative fit index (CFI) > .90 (Bentler, 1990); the parsimony comparative fit index (PCFI) and the parsimony goodness of fit index (PGFI) > .60 (Hair, Black, Babin, & Anderson, 2010); the two indices of absolute close-fit were also analysed – the root mean square error of approximation (RMSEA) and the standardized root mean residual (SRMR); RMSEA < .05 and SRMR < .08 suggest a good fit (Hu & Bentler, 1999).

As mentioned above, following the procedure used in previous studies (e.g., DeBoard-Lucas et al., 2010; Fosco & Grych, 2008), interparental conflict was a manifest composite variable computed by the sum of the 19 items of the Conflict Properties Subscale (Grych et al., 1992). Children's and adolescents' emotional insecurity consisted of six latent variables: Emotional Reactivity (7 manifest indicators), Constructive Family Representations (4 manifest indicators), Conflict Spillover Representations (2 manifest indicators), Avoidance by Inhibition (2 manifest indicators), Involvement (2 manifest indicators) and Avoidance by Withdrawal (2 manifest indicators). Children's and adolescents' SR consist of 6 latent variables: Instrumental, Social, Emotional (5, 4, 3 manifest indicators, respectively), Physical Appearance, Opposition, and Intelligence (2 manifest indicators each).

The indirect effects of interparental conflict on children's and adolescents' SR, through the emotional insecurity dimensions, were tested for analysing our mediation hypothesis. In this model, participants' age and sex were included as covariates, since previous research has shown significant age and sex differences in children's and adolescents' self-representation (Harter, 2015). Covariances among emotional insecurity dimensions as well as among the self-representation domains were estimated because of our theory-driven expectation that the several facets of emotional insecurity and the domains of self-representation would be interrelated. Following MacKinnon, Lockwood, and Williams's (2004) recommendations, we used a bootstrap approach (Shrout & Bolger, 2002) to test our mediation hypotheses. We performed a nonparametric resampling method (bias-corrected bootstrap; Preacher & Hayes, 2004) with 2000 resamples drawn with replacement from the original sample to derive the 95% confidence interval for the indirect effect.

<u>The mediating role of perceptions of parents-child relationship</u>. Using IBM SPSS v20 (IBM Corp., 2011), missing data were analysed. The amount of missing data across the study measures ranged from 0 to .9% for the CPS, and from 0 to .5% for the SRQA, which is considered small (Widaman, 2006). The NRI subscales had no missing values. Missing

estimations were run using an estimating method [CPS: Little's MCAR test chi-square = 117.692, DF = 72, p<.05; normed chi-square = 1.63 (so <2); SRQA: Little's MCAR test chi-square = 249.647, DF = 151, p<.001; normed chi-square = 1.65 (so <2)] that led to the conclusion that missing data were most likely at random (MAR) (Ullman, 2001). Therefore, for each measure (i.e., CPS and SRQA), the expectation maximization algorithm was used to impute missing data using all information available from observations on the other variables.

Then, to test our mediation hypothesis, due to theoretical assumptions, two separate models – one for children's and adolescents' perceptions of their relationship with their mother, and another for their perceptions of their relationship with their father, as mediators of the link between interparental conflict and their domain-specific SR – were analysed. The proposed mediation models were tested using path analysis, performed with AMOS (v. 20) (Arbuckle, 2011) with bootstrap estimation.

According to the procedure used in several studies using the CPIC scale (e.g., DeBoard-Lucas et al., 2010; Fosco & Grych, 2008; Simon & Furman, 2010), interparental conflict was a composite variable computed by summing up the 19 items of the CPS. Following the NRI scoring instructions, children's and adolescents' perceptions of their relationship with their parents were four composite scores derived by averaging the items of the scales composing each factor of the NRI for the mother-child and father-child relationships: Support (Mother), Negative Interactions (Mother), Support (Father) and Negative Interactions (Father). Children's and adolescents' SR consisted of 6 composite variables, parcels of the respective items that compose each dimension.

Path analysis was used to test the indirect effects of interparental conflict on children's and adolescents' SR, through their perceived relationships with both their mother and with their father in terms of support and negative interactions. Given previous research has shown significant age differences in children's and adolescents' SR (see Harter, 2015), participants' age was included in these models as a covariate. Based on theoretical assumptions and on the correlation analysis results, in each model, the error terms of the two dimensions of children's and adolescents' perception of their relationship with their parents, and of the self-representation domains that were shown to be highly significantly (i.e., p < .001) inter-correlated, were allowed to correlate.

As recommended by MacKinnon, Lockwood, and Williams (2004), to test the mediation hypothesis, a bootstrap approach (Shrout & Bolger, 2002) was used, through

performing a nonparametric resampling method (bias-corrected bootstrap) (Preacher & Hayes, 2004) with 10000 resamples drawn with replacement from the original sample to derive the 95% confidence interval for the indirect effects. To evaluate model fit, the following fit indexes and criteria were used: the relative χ^2 index (χ^2/df) values ≤ 2 (Arbuckle, 2011), the comparative fit index (CFI) \geq .95, the root mean square error of approximation (RMSEA) \leq .05 and the standardized root mean residual (SRMR) \leq .08 suggest a good fit (Hu & Bentler, 1999; Schreiber et al., 2006).

Finally, to test adolescent sex as a moderator of the hypothesized mediational pathways, moderated mediation analyses conducted separately for the mother-child and father-child, performed through multiple group model test, were conducted with AMOS (v. 20) (Arbuckle, 2011) with bootstrap estimation. In each analysis, an unconstrained multiple group model (i.e., with all path models allowed to vary by sex) was compared to a model where all model paths were constrained to be equivalent for boys and girls.

2. Results

In this section, we will present the results pertaining to: a) the psychometric evidence on the internal structure and validity of the SIS scale, adapted in the present thesis, and b) test of the two mediation models hypothesized, basing on the emotional security theory: 1) a first one analysing children's and adolescents' signs of emotional insecurity as mediator in the relation between interparental conflict and their domain-specific SR, and 2) a second one analysing children's and adolescents' perceptions of their relationship with their parents as mediators of that association.

2.1. Adaptation and validation of the SIS Scale²

Of the 255 participants that were living with both parents/parenting figures for at least two years, 26 were excluded from the analysis due to the non-completion of at least one entire measure included in these analyses. Thus, the pool of participants included in the following analytical procedures consisted of 229 adolescents (60.3 % girls), fifth to ninth graders, ranging in age from 10 to 18 years old (M_{age} =13.07 years, SD=1.76), of which 92.6

² The results presented in this section resulted in the following publication: Silva, C. S., Calheiros, M. M., & Carvalho, H. (2016). Security in the Interparental Subsystem (SIS) Scale: Psychometric Characteristics in a Sample of Portuguese Adolescents. *Journal of Family Violence*, 2(31), 147-159. (IF = 0.871; SJR Quartile 1).

% are within the 9 to 15 age range of the samples used in previous studies using the SIS scale. Most participants (210) lived with both biological parents (91.7 %); 14 (6.1 %) lived with their mother and a stepfather/mother's boyfriend or partner for more than 2 years; three (1.3 %) lived with their father and a stepmother/father's girlfriend/partner for more than 2 years; and two (0.8 %) lived with other parenting figures who assumed the role of parents (e.g., aunt and uncle; grandparents). Almost all participants were Caucasian-Portuguese (93.9 %; N=215), 4.8 % (N=11) were Hispanic, and 1.3 % (N=3) Afro-Portuguese.

2.1.1. Adaptation

The adaptation of the Security in the Interparental Subsystem scale (Davies, Forman, et al., 2002) began with a careful translation of the 43 items to the Portuguese language by the researcher and two other independent researchers with scientific knowledge and professional experience in self-report measures adaptation and validation. Translation was literal for most items. In three items which included colloquialisms that do not have a literal Portuguese translation (e.g., 'shake off' in item '9. After my parents argue, I can't seem to shake off my bad feelings'), an expression with a similar meaning was found. The items in which discrepancies between translations arose were discussed by the researchers until consensus was reached. No cultural discrepancies between the two versions were found, given that the experiences captured by all the items are also experienced in the Portuguese culture, and hence there was no need to replace any item for a similar one experienced in the Portuguese culture. Following this translation process, a back-translation was performed by a bilingual researcher to assure that the original meanings remained following the translation. Then, this version and the original one were compared by an English-speaking researcher and were considered identical, semantically, experientially, and conceptually.

2.1.2. Validity analysis

Given that the SIS scale has already been submitted to a CFA in the original study (Davies, Forman, et al., 2002), we first tested the original factor structure in our sample using maximum likelihood estimation, conducted by means of AMOS 20.0 (Arbuckle, 2011), with the full sample of 229 adolescents. Results of the CFA did not have an acceptable fit. Thus, in order to identify the factor structure of the SIS Scale in our sample, a holdout method was tested with a cross-validation randomizing the full sample into two sub-samples. The random

sample of cases was used selecting approximately 50 % of the cases: Sample A—112 participants; Sample B—117. In Sample A, an EFA using principal axis factoring method was conducted, and a CFA was applied to Sample B with Maximum Likelihood Estimation.

2.1.2.1. Descriptive Statistics

Preceding the analysis of the construct validity, a descriptive analysis of the 35 items of the updated original version (see Cummings & Davies, 2010) was performed in order to obtain information about the symmetry of the items' distribution. The analysis of the ratio Skewness/Standard Error (*Sk/SE*) allowed the identification of four items (13. I yell at, or say unkind things to, people in my family; 14. I hit, kick, slap, or throw things at people in my family; 19. I try to clown around or cause trouble; and 41. I think they blame me) with a highly skewed distribution, in that most participants responded '1- not at all true of me' (cf. Appendix A, Table1). Therefore, these items were not included in the subsequent analytical procedures. Nevertheless, the absolute values of skewness for all the 31 items were lower than 3, which can be considered non-problematic in terms of distribution (Kline, 2005).

2.1.2.2. Construct Validity

a) Exploratory Factor Analysis.

The factor model adequacy was checked by the significant value of the Bartlett's Test of Sphericity (p<.001) and the medium Kaiser-Meyer-Olkin (KMO=.77). An oblique rotation was applied to the solution considering our theory-driven expectation that the SIS subscales would be intercorrelated (Cummings & Davies, 2010; Davies & Cummings, 1994). After dropping 12 items (6, 12, 15, 18, 28, 30, 33, 37, 38, 39, 40, 42) from the analysis due to low loadings (i.e., item weight < .30), similar loadings on multiple factors, and poor theoretical interpretability with the factor (Tabachnick & Fidell, 1996), six factors were extracted, basing the decision on eigenvalues, scree plot, and theoretical interpretability. All factors had eigenvalues above 1 and explained approximately 53 % of the total variance.

Table 1 reports the factor loadings from the EFA, as well the variance explained by the factors. The first factor (seven items selected) corresponds to the 'emotional reactivity' factor of the original structure, as it taps frequent and prolonged expressions of negative affect. The second factor (four items selected) matches the original version's 'constructive family representations' factor, reflecting appraisals of conflict as benign or constructive for the family. The third factor (two items selected) was termed 'Avoidance by Inhibition' in this

adapted version, as it is part of the 'avoidance' factor of the original SIS, reflecting inhibition responses in response to interparental conflict. The fourth factor (two items selected) is part of the original 'Conflict Spillover Representations' factor, reflecting adolescents' beliefs that interparental conflict can proliferate to affect their own well-being. The fifth factor (two items selected) is part of the original 'involvement' factor that reflects dispositions to become emotionally (e.g., concern for parents) and behaviourally (e.g., comfort, solve problem) involved in parental conflicts. Finally, the sixth factor (two items selected) was termed 'Avoidance by Withdrawal' in this version, as it is part of the original 'Avoidance' dimension, which reflects strategies used to escape interparental conflict by physically distancing oneself from it.

b) Reliability Data.

Reliability was first checked calculating Cronbach's Alpha. Results of this analysis indicated a good reliability for factors 1 (α =.85), 2 (α =.79), and 3 (α =.74) (Kline, 2000), similarly to the corresponding factors of the original study (Davies, Forman, et al., 2002). For factors 4, 5, and 6, alpha coefficients fall below the .70 benchmark, usually considered to establish acceptable reliability (respectively, .58, .47 and .59). Considering Swailes and McIntyre-Bhatty (2002) suggestion that a small number of items per factor can lead to lower alpha coefficients, particularly when items are less than seven, and following Clark and Watson (1995) recommendation, we additionally calculated the mean inter-item correlations for these factors. Results of this analysis revealed that the mean inter-item correlations of these three factors fall in the range .15–.50 (Clark & Watson 1995) –.41 (factor 4), .30 (factor 5), and .42 (factor 6).

Table 1.

Factor pattern matrix from the exploratory factor analysis of the Security in the Interparental Subsystem (SIS) Scale in a sample of Portuguese adolescents

Label	Items	Factor Structure									
Lauci	Items	M	SD	1	2	3	4	5	6		
	2. When my parents argue, I feel scared	2.03	1.06	.838	.015	086	073	.108	082		
	4. When my parents argue, I feel unsafe	1.58	.93	.728	061	004	.065	.267	.044		
	8. After my parents argue I can't seem to calm myself down	1.88	1.01	.703	141	.069	.099	260	.037		
Emotional reactivity	1. When my parents argue, I feel sad	2.71	1.06	.621	.132	172	.005	034	.014		
	3. When my parents argue, I feel angry	2.11	1.11	.558	138	.083	022	139	.052		
	9. After my parents argue I can't seem to shake off my bad feelings	2.01	1.06	.488	.006	034	.172	055	.171		
	7. After my parents argue It ruins my whole day	2.14	1.07	.458	046	147	.207	089	.062		
	When my parents have an argument										
Constructive	36. I know that everything will be okay	3.43	1.08	001	.865	020	070	035	.073		
Constructive	35. I know they still love each other	3.43	.97	067	.833	026	.113	.088	011		
family	43. I believe that they can work out their differences	3.40	.91	051	.663	.094	008	082	061		
representations	34. The family is still able to get along with each other	3.11	1.08	.084	.373	236	176	233	.123		

(cont.)

Label	Itama	Factor Structure									
Label	Items	M	SD	1	2	3	4	5	6		
	When my parents have an argument										
Avoidanaa hy	22. I try to be really quiet	2.36	1.11	.030	066	791	.051	063	018		
Avoidance by Inhibition	23. I end up doing nothing, even though I wish I could do something	2.36	1.17	.100	.075	672	.044	.088	.030		
	When my parents have an argument										
Spillover	37. I feel like it's my fault	1.69	.93	.187	.048	.032	.679	096	056		
representations	21. I feel caught in the middle	1.65	.86	123	057	266	.538	-,002	.200		
	When my parents have an argument										
Involvement	16. I try to distract them by bringing up other things	2.23	1.08	107	.041	037	.030	699	.014		
mvorvement	26. I try to solve the problem for them	1.96	1.04	.219	.118	.072	.102	411	064		
	When my parents have an argument										
Avoidance by	29. I feel like staying as far away from them as possible	1.77	1.03	.066	.055	.131	.118	.110	.672		
Withdrawal	31. I try to get away from them (for example, by leaving the room)	1.96	1.02	022	053	168	129	115	.670		
Explained varia			22.3%	13.4%	7.1%	3.9%	3.4%	2.9%			

c) Confirmatory Factor Analysis.

We tested the factor structure of the SIS Scale, provided by the preliminary EFA, using CFA in subsample B, conducted by means of AMOS 20.0 (Arbuckle, 2011). Maximum likelihood (ML) estimation was used and the six-factor model was tested. In order to avoid problems resulting from deviations from normality and because we have a small sample (n=117), we also used a nonparametric method (bootstrap) with 5000 subsamples and found that the estimates were stable. To evaluate the model fit, we relied on various fit indices with the following criteria: the ratio of the chi-square statistic to the degrees of freedom (χ 2/df) below 2; the comparative fit index (CFI) approaching 1 (Bentler, 1990), and the root mean square error of approximation (RMSEA) below .10 (Arbuckle & Wothke, 1999; MacCallum, Browne, & Sugawara, 1996; Maroco, 2010). The overall fit of the six-factor model tested was generally within the range of adequate fit: χ^2 (139) = 252.571, p<.001, χ^2 /df = 1.817; root mean square error of approximation (RMSEA) = .08; and comparative fit index (CFI) = .84.

The six-factor unstandardized solution for the SIS scale in our sample, the factor loadings, individual reliability of the items of each factor, and the correlations between factors are displayed in Figure 1. Correlations among factors were, in general, low to moderate, suggesting acceptable discriminant validity between the factors (Brown, 2006). Emotional reactivity was positively correlated with Conflict Spillover Representations (r = .78), Avoidance by Inhibition (r = .38), and Involvement (r = .52). Constructive family representations were positively correlated with the Avoidance by Inhibition (r = .37) and Involvement (r = .56). Finally, Avoidance by Inhibition was positively correlated with the Avoidance by Withdrawal (r = .45). Additionally, as we have shown in Figure 1, all factor loadings were higher than .40, and most factor loadings were considered strong (i.e., > .60), suggesting a good convergent validity (Brown, 2006).

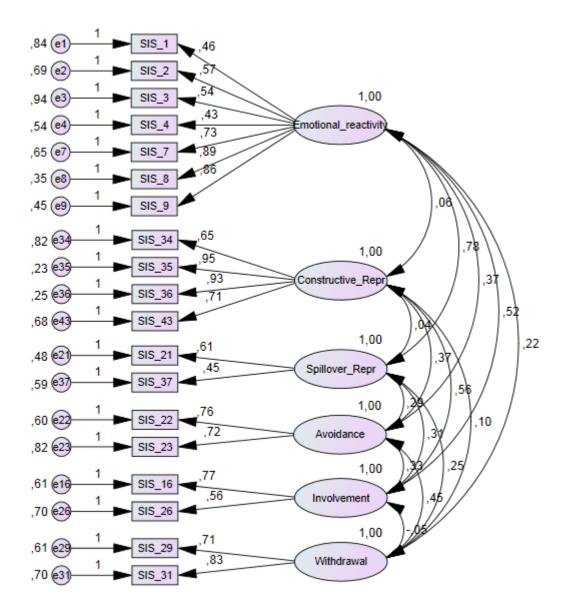


Figure 1. Unstandardized factor structure for the SIS Scale in the present sample

2.1.2.3. Concurrent Validity

A positive and significant correlation was found only between emotional reactivity and adolescents' externalizing problems. No significant correlations were found between the SIS dimensions and internalizing problems (Table 2).

Table 2.

Correlations between the SIS dimensions and Internalizing and Externalizing Problems

	TRF						
Dimensions of Emotional Security	Internalizing	Externalizing					
	Problems	Problems					
Emotional Reactivity	.073	.160*					
Constructive Family Representations	.067	078					
Conflict Spillover Representations	.080	.159					
Avoidance by Inhibition	.027	.002					
Avoidance by Withdrawal	004	048					
Involvement	.089	.063					

^{*} p<.05

2.1.2.4. Discriminant Validity

Linear regression of the SIS dimensions on interparental conflict revealed a significant effect for the dimensions: Emotional Reactivity (β = .401, p < .001), Constructive Family Representations (β = -.361, p < .001), Conflict Spillover Representations (β = .231, p < .001), and Withdrawal (β = .196, p = .003). Thus, children and adolescents exposed to higher levels of destructive interparental conflict showed significantly higher levels of emotional reactivity, conflict spillover representations, and withdrawal reactions, and significantly lower levels of constructive family representations.

2.2. Interparental conflict and children's and adolescents' self-representations

Once presented the psychometric evidence on the internal structure and validity of the SIS scale, adapted in the present thesis, we will proceed to present the test of the two mediation models hypothesized, basing on the emotional security theory: 1) a first one analysing children's and adolescents' signs of emotional insecurity as mediator in the relation between interparental conflict and their domain-specific self-representations (SR), and 2) a second one analysing children's and adolescents' perceptions of their relationship with their parents as mediators of that association.

2.2.1. The mediating role of emotional insecurity³

For the analysis of the mediating role of children's and adolescents' emotional insecurity dimensions in the relation between interparental conflict and their SR, of the 255 participants that were living with both parents/parenting figures for at least two years, 26 were excluded from the analysis due to the non-completion of at least one entire measure included in these analyses. Since this study aims at analysing a model that simultaneously relates the three measures, it was ensured that only participants with answers in the three measures would be included. Finally, 8 participants aged more than 16 years old (i.e., 5 were 17 and 3 were 18) were also excluded from the analysis in order to shorten the age range and, thus, diminish the variety of possible age-specific phenomena. Therefore, the final pool of participants consisted of 221 (83.0%) Portuguese children and adolescents (60.3% girls), fifth to ninth graders, ranging in age from 10 to 16 years old ($M_{\text{age}} = 12.91$ years, SD = 1.59). Mirroring the characteristics of the whole sample, described previously, most participants (210) lived with both biological parents (91.7%); 14 (6.1%) had lived with their mother and a stepfather/mother's boyfriend/partner for more than 2 years; 3 (1.3%) with their father and a stepmother/father's girlfriend/partner for more than two years; and 2 (0.8%) lived with other parenting figures who assumed the role of parents (e.g., aunt and uncle; grandparents). Almost all participants were Caucasian-Portuguese (93.9%; n = 215), 4.8% (n = 11) were Hispanic, and 1.3% (n = 3) Afro-Portuguese.

2.2.1.1. Correlations and descriptive statistics

For descriptive purposes, means, SDs, and correlations of the study variables are presented in Table 3. The correlations are generally consistent with the theorized pattern of relationships: most emotional insecurity dimensions showed moderate correlations with interparental conflict; and some dimensions of self-representation showed moderate to low correlations to emotional insecurity dimensions.

 $^{^3}$ The results presented in this section resulted in the following publication: Silva, C. S., Calheiros, M. M., & Carvalho, H. (2016). Interparental conflict and adolescents' self-representations: The role of emotional insecurity. *Journal of Adolescence*, 52, 76–88. (IF = 1.795; SJR Quartile 1)

Table 3.

Descriptive statistics and correlations among the model variables (N=221)

	Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1.	Age														
2.	Interparental Conflict	08													
3.	Emotional Reactivity	.01	.41***												
4.	Constructive Representations	08	38***	.00											
5.	Spillover Representations	01	.23**	.42***	01										
6.	Inhibition	08	.04	.29***	.24***	.21**									
7.	Withdrawal	.02	.18**	.19**	.07	.17*	.27***								
8.	Involvement	.02	02	.32***	.37***	.20**	.11	00							
9.	Instrumental SR	.01	19**	06	.14*	12	.04	12	.17*						
10.	Social SR	.09	29***	07	.14*	08	.03	12	.20**	.50***					
11.	Emotional SR	02	32***	24***	.25***	13	.10	20**	.09	.26***	.30***				
12.	Physical Appearance SR	08	20**	11	.14*	04	.03	12	.09	.26***	.34***	.34***			
13.	Intelligence SR	11	12	09	.07	03	.03	04	.03	.34***	.40***	.12	.42***		
14.	Opposition SR	16*	19**	13	01	04	10	10	.01	.25***	03	.13	.04	01	
M		12.91	9.33	2.07	3.26	1.68	2.32	1.90	2.10	3.72	4.10	4.30	3.94	3.58	3.04
SD		1.59	8.04	.75	.82	.74	.99	.90	.87	.67	.67	.67	.96	.88	.97

Note. SIS = Security in the Interparental Subsystem Scale; SR = Self-representations. The SIS and SR variables are parcels of the respective items that compose them. *p < 0.05, **p < 0.01, ***p < 0.001.

2.2.1.2. Mean differences on children's and adolescents' sex

Predictor, criterion, and mediator variables were analysed considering children's and adolescents' sex. Results revealed significant differences between girls and boys only for instrumental, social and opposition SR: girls reported higher levels instrumental and social SR than boys, whereas boys presented more positive SR in the opposition domain (cf. Appendix A, Table 2).

2.2.1.3. Mediation model

As shown in Figure 2, structural paths were estimated between a) interparental conflict and SR dimensions, b) interparental conflict and emotional insecurity dimensions, and c) emotional insecurity dimensions and SR dimensions (Model fit: χ^2 (681) = 951.246, p < .001; χ^2/df = 1.468; CFI = .89; PCFI = .74; PGFI = .66; RMSEA = .05, 90% CI [.04 to .05]; SRMR = .06). This figure shows the standardized bootstrap parameter estimates of the structural mediation model.

After controlling for age and sex, significant indirect global effects were found between interparental conflict and: 1) emotional SR through emotional reactivity and withdrawal reactions (β = -.36, p < .001, 95% CI [-.50,-.26]), 2) physical appearance SR also through emotional reactivity and withdrawal reactions (β = -.13, p = .003, 95% CI [-.24, -.05]), and 3) instrumental SR (β = -.12, p = .032, 95% CI [-.23, -.01]), through conflict spillover representations and constructive representations. Children and adolescents exposed to higher levels of destructive interparental conflict displayed greater emotional reactivity and withdrawal behaviour, which, in turn, predicted less favourable SR in the emotional and physical appearance domains. In addition, adolescents exposed to higher levels of destructive interparental conflict displayed: 1) greater conflict spillover representations which, in turn, predicted less favourable instrumental SR; and 2) fewer constructive interparental conflict, which, in turn, predicted more favourable instrumental SR.

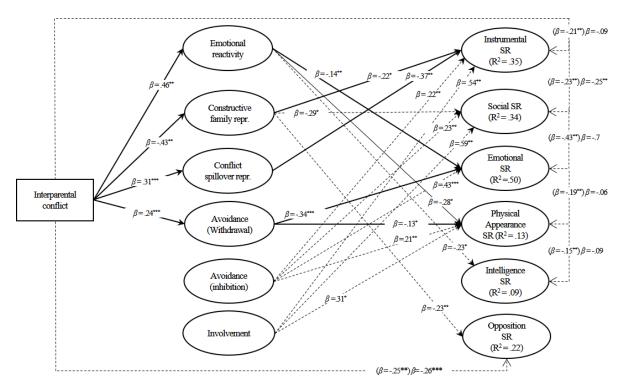


Figure 2 – Model examining emotional insecurity in the interparental relationship as mediators of the link between interparental conflict and SR. Arrows in solid refer to significant indirect effects. Beta coefficients in brackets refer to the total effect of interparental conflict on SR dimensions. For ease of interpretation, only significant effects are represented, except for the direct effects presented adjacent to the total effects. SR = Self-representations. *p < .05 **p < .01 ***p < .001

The direct effects of interparental conflict on SR were not significant (instrumental: β = -.09; emotional: β = -.07; physical appearance: β = -.06; intelligence: β = -.09), except for the social (β = -.25, p = .002) and opposition (β = -.26, p < .001) dimensions. Thus, results revealed full mediation of emotional reactivity and withdrawal behaviour in the relation between interparental conflict and children's and adolescents' emotional and physical appearance SR, and full mediation of conflict spillover representations and constructive representations in the relation between interparental conflict and instrumental SR.

2.2.2. The mediating role of perceived parent-child relationships⁴

For the analysis of the mediating role of children's and adolescents' perceptions of their relationship with their parents between interparental conflict and their SR, of the 255 participants that were living with both parents/parenting figures for at least two years, 12

⁴ The results presented in this section resulted in the following publication: Silva, C. S., & Calheiros, M. M. (in press). Stop Yelling: Interparental conflict and adolescents' self-representations as mediated by their perceived relationships with parents. *Journal of Family Issues*.

(4.3%), aged more than 16 years old (i.e., 5 were 17 and 3 were 18), were excluded from the analyses in order to reduce the age range and, therefore, minimize the variety of possible age-specific phenomena. In addition, 29 participants (10.5%) were also excluded from the analyses because they had returned at least one entire measure unfilled. Thus, the final sample included in the analyses was composed of 214 children and adolescents (58.4% girls), aged between 10 and 16 years old ($M_{\rm age} = 13.39$ years, SD = 1.45). The majority (197) lived with both biological parents (92.1%); 12 (5.6%) were living with their mother and a stepfather/mother's boyfriend/partner for more than 2 years; 3 (1.4%) with their father and a stepmother/father's girlfriend/partner for more than two years; and 2 (0.9%) lived with substitute parenting figures (aunt and uncle; godparents). Most participants were Caucasian (94.4%; n = 202), 4.2% (n = 9) were Hispanic-descendants, and 1.4% (n = 3) Afrodescendants.

1.1.1.1. Correlations and descriptive statistics

Table 4 presents the means, standard deviations, and inter-correlations among all variables included in the models. Generally, the correlations were in line with the theoretically expected pattern of relationships: interparental conflict showed significant negative correlations with children's and adolescents' perceptions of support in their relationship with both their mother and father, significant positive correlations with children's and adolescents' perceptions of negative interactions in their relationship with both their mother and father, and significant negative correlations with all the evaluated domains of children's and adolescents' SR. Children's and adolescents' perceptions of support in both relationships showed significant positive correlations with all SR domains, with the exception of the correlations between perception of support in the mother-child relationship and opposition SR. Children's and adolescents' perceptions of negative interactions in both relationships were significantly and negatively associated with most SR domains. Finally, children's and adolescents' age was significantly negatively correlated only with perceived support in the mother-child relationship and with opposition SR, although these correlations were quite low.

Table 4.

Descriptive statistics and correlations among the study variables (N=214)

	Variable	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.	Age	13.47	1.46											
2.	Interparental Conflict	9.52	8.03	09										
3.	Support – Mother (M)	4.17	.60	16*	37***									
4.	Negative Interactions -M	2.29	.73	.13	.19**	23**								
5.	Support – Father (F)	3.88	.81	12	55***	.62***	19**							
6.	Negative Interactions - F	2.19	.67	01	.33***	09	.42***	32***						
7.	Instrumental SR	3.69	.67	03	-19**	.26***	22**	.23**	24**					
8.	Social SR	4.08	.68	.11	31***	.35***	08	.35***	10	.52***				
9.	Emotional SR	4.28	.81	.05	32***	.27***	13	.20**	16*	.26***	.27***			
10.	Physical Appearance SR	3.90	.97	07	21**	.29***	19**	.27***	12	.26***	.34***	.37***		
11.	Intelligence SR	3.57	.88	06	12	.20**	16*	.17*	02	.36***	.39***	.16*	.43***	
12.	Opposition SR	3.05	.97	18**	16*	01	15*	.16*	33***	.27***	.02	.12	.06	.01

Note. SR = Self-representations. The Support (Mother/Father), Negative Interactions (Mother/Father) and SR variables are composites derived from the factor scores of the confirmatory factor analyses performed in the present sample. * p < .05 ** p < .01 *** p < .001

1.1.1.2. Mean differences on children's and adolescents' sex

The mediator variables were analysed considering children's and adolescents' sex. Results revealed significant differences between girls and boys only for children's and adolescents' perceptions of support in their relationship with their mother, in which girls perceived higher levels of support than boys (cf. Appendix A, Table 3).

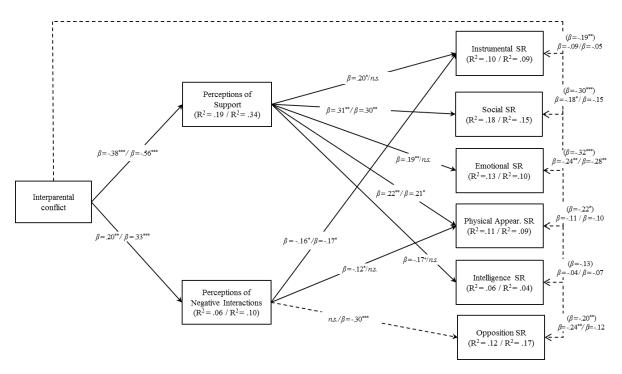


Figure 3 – Model examining children's and adolescents' perceptions of their relationship with their parents as mediators linking interparental conflict and their SR. Path coefficients and R2 values on the left refer to the mother-child relationship model, and on the right to the father-child relationship model. Arrows in solid refer to significant indirect effects. Beta coefficients in brackets refer to the total effect of interparental conflict on SR dimensions. For ease of interpretation, only significant effects are represented, except for the direct effects presented adjacent to the total effects. SR = Self-representations. *p<.05 **p<.01 ***p<.001

1.1.1.3. Mediation model

Figure 3 presents the results of the two models estimated to examine children's and adolescents' perceptions of their relationship with their parents (i.e., perceived support and negative interactions in both mother-child and father-child relationships) as intervening mechanisms linking interparental conflict to children's and adolescents' domain specific SR. The theoretical models presented a very good fit to the data – mother-child relationship: (χ^2 (7) = 10.462, p = .164 (n.s.); $\chi^2/df = 1.495$; CFI = .99; GFI = .99; RMSEA = .05, 90% CI [.00 to .11]; SRMR = .03); father-child relationship: (χ^2 (10) = 6.448, p = .375 (n.s.); $\chi^2/df = .375$

1.075; CFI = .99; GFI = .99; RMSEA = .02, 90% CI [.00 to .09]; SRMR = .03). Figure 3 depicts the standardized bootstrap parameter estimates of the path analysis models.

Controlling for the potential effect of children's and adolescents' age, results of the mother-child relationship mediation model revealed significant global indirect effects of interparental conflict on children's and adolescents': 1) instrumental SR (β = -.11, p = .002, 95% CI [-.19 ,-.04]), through children's and adolescents' perceptions of support and negative interactions; 2) social SR (β = -.12, p < .001, 95% CI [-.20 , -.06]), 3) emotional SR (β = -.08, p = .008, 95% CI [-.17 , -.02]), and 4) Intelligence SR (β = -.08, p = .007, 95% CI [-.19 , -.03]), through children's and adolescents' perceptions of support; and 5) physical appearance SR (β = -.11, p = .001, 95% CI [-.16 , -.05]), through children's and adolescents' perceptions of support and negative interactions. Children and adolescents who reported higher levels of interparental conflict also reported: 1) lower levels of perception of support in their relationships with their mother, which in turn predicted worse instrumental, social, emotional, intelligence and physical appearance SR; and 2) higher levels of negative interactions in that relationship, which in turn predicted worse instrumental and physical appearance SR.

Interparental conflict had a significant direct effect only on children's and adolescents' social (β = -.18; p = .021) and emotional SR (β = -.24; p = .003). Given that the direct effects of interparental conflict on children's and adolescents' SR were not significant on the instrumental (β = -.09), intelligence (β = -.04), and physical appearance (β = -.11) domains, results revealed full mediation of: 1) perceptions of support and negative interactions in the mother-child relationship in associations between interparental conflict and children's and adolescents' instrumental and physical appearance SR; and 2) perceptions of support in the mother-child relationship in associations between interparental conflict and children's and adolescents' intelligence SR.

As for the father-child relationship model, as can be seen in Figure 2, also controlling for the potential effect of children's and adolescents' age, results revealed significant global indirect effects of interparental conflict on children's and adolescents': 1) instrumental SR (β = -.14, p = .007, 95% CI [-.27 ,-.04]), through children's and adolescents' perceptions of negative interactions; and 2) social SR (β = -.15, p < .002, 95% CI [-.27 , -.05]), and 3) physical appearance SR (β = -.12, p = .007, 95% CI [-.23 , -.03]), through children's and adolescents' perceptions of support. Thus, children and adolescents who reported higher levels of interparental conflict also reported: 1) lower levels of perception of support in their

relationship with their father, which in turn predicted worse social and physical appearance SR; and 2) higher levels of negative interactions in that relationship, which in turn predicted worse instrumental and physical appearance SR.

Interparental conflict had a significant direct effect only on children's and adolescents' emotional SR (β = -.28; p = .002). Since the direct effects of interparental conflict on children's and adolescents' SR were not significant on the instrumental (β = -.05) and physical appearance (β = -.02) SR domains, results revealed full mediation of: 1) perceptions of support in the father-child relationship in associations between interparental conflict and children's and adolescents' social and physical appearance SR; and 2) perceptions of negative interactions in that relationship in the association between interparental conflict and children's and adolescents' instrumental SR.

Analysis of children and adolescents sex as a moderator. Finally, the multiple group model tests to analyse children's and adolescent sex as a moderator of both mediation models, showed that the chi-square difference was not significant in both models (mother-child relationship: $\Delta \chi^2$ (28) = 36.60, p = .128; father-child relationship: $\Delta \chi^2$ (28) = 40.952, p = .054), indicating that both models did not significantly differ between boys and girls. In other words, results show that children and adolescents gender did not significantly moderate the hypothesized mediational pathways.

3. Discussion

3.1. Adaptation and validation of the SIS Scale

Even though the SIS scale (Davies, Forman, et al., 2002) has been widely used in process oriented research on the consequences of interparental conflict on children's and adolescents' developmental outcomes, it has not yet been adapted to the Portuguese population. Therefore, this study intended to address this gap in the research by presenting an adaptation of the SIS Scale and determining its construct validity. We assessed the extent to which it measures emotional insecurity in a sample of Portuguese fifth to ninth graders attending public middle and secondary schools. In the context of this sample, the internal consistency of the several dimensions and concurrent and discriminant validity were also assessed.

The non-acceptable fit found in the confirmatory factor analysis of the original structure of this scale led to the need to make adjustments so that we could confirm that, ultimately, the model and the structure proposed by the original authors of this scale effectively demonstrated validity for the measurement of emotional insecurity in the context of our sample. Thus, we submitted the SIS items to an exploratory factor analysis in order to determine the dimension structure in which they organize in the context of our sample. The six-dimension structure found in the EFA is composed of the following dimensions: Constructive Family Emotional Reactivity, Representations, Conflict Representations, Avoidance by Inhibition, Avoidance by Withdrawal, and Involvement. Although some differences are worth noting between this solution's structure and the original factor structure of the SIS (i.e., it is composed of a smaller set of items; it does not include the dimensions 'Behavioural Dysregulation' and 'Destructive Family Representations'; and the original 'Avoidance' is divided into 'Avoidance by Inhibition' and 'Avoidance by Withdrawal'), the factor structure obtained in this study strongly resembles the original one. It maintains the same conceptual and operationalization principles of the emotional security concept, as it includes the three regulatory response processes proposed in EST (Cummings & Davies, 2010; Davies & Cummings, 1994): 1) emotional reactivity, 2) regulation of exposure to interparental conflict (e.g., avoidance and involvement in interparental discord); and 3) internal representations of the meaning that interparental conflicts have for the overall well-being of the family and of the children/adolescents themselves. Thus, even though this structure does not include the dimensions 'behavioural dysregulation' and 'destructive family representations', it generally supports the original SIS structure, adding empirical support to the dimensionality of emotional security. While most dimensions retained a smaller set of items, all the items included are also part of the corresponding original dimensions. Therefore, our version does not alter the content suggested by the authors (Davies, Forman, et al., 2002) as adequate to measure the construct of emotional security.

Regarding the reliability of the obtained dimensions, like the original study (Davies, Forman, et al., 2002), the internal consistency of the factors 'emotional reactivity', 'constructive family representations', and 'avoidance by inhibition' exceeded the .70 standard of acceptability (Kline, 2000; Nunnally & Bernstein, 1994). The Cronbach's Alpha coefficients of factor 4 (i.e., Spillover representations), 5 (i.e., Involvement), and 6 (i.e., Avoidance by Withdrawal) fell below the benchmark of .70, which may be attributable to the

fact that smaller scales tend to yield lower internal consistency values (Swailes & McIntyre-Bhatty, 2002). Indeed, in the original study (Davies, Forman, et al., 2002), the alpha coefficient of the smallest scale (i.e., behavioural dysregulation) was also low (i.e., .65 and .52). As stressed by Pedhazur and Schmelkin (1991), reliability should be evaluated by taking into account the specific circumstances of each study. Also, Voss, Stem, and Fotopoulos (2000) argue that it is not always theoretically recommended to divide outcome measures as reliable or unreliable based on rigid benchmarks (i.e., the 0.70 benchmark). In fact, both the number of items included in a factor as well as the sample size are implicated in the interpretation of reliability estimates (Cronbach, 1951; Swailes & McIntyre-Bhatty, 2002; Voss et al., 2000). Given that these three factors were composed of two items each and bearing in mind the relatively small sample size used in the EFA, we used the correction factor provided by Cronbach (1951) and calculated the mean inter-item correlations for these factors, which were independent of the scale length, to evaluate the internal consistency. Clark and Watson (1995) recommend that the average inter-item correlation falls in the range of .15–.50. Our results showed that for all these three factors, the value of the mean inter-item correlation was between that range, suggesting that the reported alpha coefficients can be considered adequate. This structure shows considerable potential, as it explains over 50% of the emotional security construct variance. Each of the dimensions found present adequate reliability values. The subsequent CFA confirmed this structure, providing an adequate model fit. These results suggest that this adapted model of the SIS can be useful to measure children's and adolescents' signs of emotional insecurity in the interparental relationship exposed to low to moderate interparental conflict.

Since one of the main aims for the development of the SIS scale was to provide a valuable instrument for process-oriented research on the associations between interparental conflict and children's and adolescents' adjustment, additional evidence of validity was tested analysing the relationship between the SIS dimensions and 1) children's and adolescents' reports of exposure to destructive interparental conflict, and 2) teachers' reports of the children's and adolescents' internalizing and externalizing symptoms in the school context. As mentioned before, according to EST, experiential histories with destructive interparental conflict undermine children's and adolescents' emotional security. As such, evidence for the discriminant validity of the SIS Scale was gathered by examining the extent to which the SIS dimensions discriminate between the participants exposed to higher vs lower levels of

interparental conflict. The results show that four dimensions of the SIS scale, comprising the three main emotional insecurity response processes (emotional, cognitive, and behavioural)— Emotional Reactivity, Constructive Family Representations, Conflict Spillover Representations, and Avoidance dimensions—significantly discriminate between children and adolescents who reported higher vs lower levels of exposure to destructive interparental conflict. Specifically, children and adolescents exposed to higher levels of destructive interparental conflict also reported significantly higher levels of emotional reactivity, conflict spillover representations, withdrawal reactions, and lower levels of constructive family representations.

These results correspond to previous findings that support the positive association between interparental conflict and children's and adolescents' signs of emotional insecurity. In fact, as mentioned before, research in this area clearly suggests that higher levels of exposure to destructive interparental conflict have been associated with higher levels of emotional insecurity in children and adolescents (Cummings & Davies, 2010). The weak validity of the 'Avoidance by Inhibition' and 'Involvement' subscales was also in line with the results found by the authors (Davies, Forman, et al., 2002).

Regarding the analysis of the intercorrelations between the SIS dimensions and children's and adolescents' internalizing and externalizing symptoms evaluated by the teachers, only one significant correlation was found: between Emotional Reactivity and teachers' reports of children's and adolescents' externalizing problems. Thus, this test failed to provide strong evidence for the concurrent validity of the SIS in our sample. We argue that the fact that children's and adolescents' adjustment problems were evaluated by the teachers might be underlying these findings, especially regarding the lack of significant associations found between the SIS dimensions and adolescents' internalizing problems. This argument is supported by previous research showing that correlations among youths' and various adults' (e.g., parents, teachers, mental health workers) reports of youths' problems are only low to moderate, with greater agreement for externalizing problems (Achenbach et al., 1987; Achenbach, 2006; Sainero, Del Valle, & Bravo, 2015). Children and adolescents tend to be the most accurate reporters of their internalizing symptoms (Achenbach, 1991). Indeed, both researchers and clinicians prefer youth to teachers as sources of information about internalizing problems, while at the same time perceive them as the least useful source of behaviour ratings regarding externalizing problems (e.g., hyperactivity, inattention,

oppositional behaviours) (Loeber, Green, Lahey, & Stouthamer-Loeber, 1991). Teachers, on the other hand, may be more sensitive to disruptive behaviours that disturb the working and learning climate in the classroom, and thus be less likely to report internalizing versus externalizing symptoms (Abikoff, Courtney, Pelham, & Koplewicz, 1993; Larsson & Drugli 2011). For example, there are indeed a substantially larger number of attentional problems reported by teachers compared with parents and youth (Youngstrom, Loeber, & Southamer-Loeber, 2000). In addition, internalizing behaviours might be more difficult to observe and less disruptive to classroom functioning and thus less likely to attract the attention of teachers (Achenbach, et al. 1987).

As for the split of the original Avoidance dimension in Inhibition and Withdrawal, that emerged from our structure, this difference was in line with advances in the formulation of emotional security theory highlighting the distinction between patterns of reactivity to interparental conflict that reflect distinct types of insecurity (Davies & Sturge-Apple, 2007). Regarding specifically the overall avoidance reactions, as Gilbert (2001) noted, while some children may exhibit a more camouflaging pattern of insecurity, characterized by the inhibition of behavioural displays of distress, other children may express insecurity through the demobilizing strategies of disengagement. This is precisely the distinction that emerged in the factor structure found in the present study.

This finding is also supported in literature about the distinctions between coping strategies or reactions to dissatisfaction in interpersonal relationships described by Rusbult and her colleagues (Rusbult, Zembrodt, & Gunn, 1982; Rusbult & Zembrodt, 1983), particularly regarding two categories of behaviour identified by these researchers: (a) 'exit' – destructive and pessimistic responses in regard to the future of the relationship, including active behaviours of distancing oneself from the relationship; and (b) 'loyalty' – passive responses including waiting for conditions to improve without their active intervention. Children's and adolescents' inhibition and withdrawal reactions towards interparental conflict are in line with these categories of behaviour. In fact, inhibition responses include more passive behaviours, while avoidance by withdrawal is a more active kind of response.

This distinction might be particularly relevant for Portuguese people, since education and socialization patterns in Portugal have been traditionally oriented to the valorization of obedience and respect towards intergenerational differentiation and hierarchy (Rodrigues, 1994), which appeals to more passive behaviours in children and adolescents when facing

interaction with and between adults. This might help explain why inhibition and withdrawal were perceived as two distinct types of reactions, the first being more culturally reinforced and generalized, and the second being somewhat more deviant.

The associations found between interparental conflict and children's and adolescents' emotional insecurity responses also supported this distinction. In fact, inhibition responses were not significantly predicted by interparental conflict, suggesting that these reactions were independent of the levels of interparental conflict and might reflect the Portuguese cultural trend towards passivity and conformity (Benavente, Mendes, & Schmidt, 1997), as mentioned above, in parent—child relationships (Rodrigues, 1994). Withdrawal reactions, on the other hand, were significantly predicted by interparental conflict, which suggests that these reactions reflect a greater difficulty regarding interparental conflict situations, which prompts children and adolescents to feel the need to actively escape from those situations.

Although the factor solution presented in this study shows potential to be used with Portuguese adolescents, it is necessary to reflect carefully on these results, as some limitations of this study merit mention. First, it is important to note that this study was conducted with a smaller sample than the one used to validate the original version of the SIS. However, even though this is a limitation of our study, given that, to our knowledge, the SIS has only been used in studies with English speaking populations (e.g., Buehler et al., 2007; Cook et al., 2013; Davies et al., 2012; Davies & Forman, 2002; Keller & El-Sheikh, 2011; Kelly & El-Sheikh, 2013), we consider that the present study is still an important contribution to future studies regarding adaptation and validation of the SIS scale to other populations, particularly for Portuguese people.

Additionally, our sample is normative and characterized by low to moderate levels of exposure to interparental conflict. Nevertheless, interparental conflict is a normal and inevitable occurrence in interparental relationships, especially if it is conceptualized as any dispute, disagreement, or expression of unpleasant emotions regarding everyday interparental matters (Cummings & Davies, 2010). Thus, we considered that studies with normative samples, with low to moderate levels of interparental conflict, can be important contributors to the understanding of how the emotional security system operates in the link between interparental conflict and child and adolescent outcomes in this group. Such knowledge could have important practical implications, such as promoting the early detection of difficulties related to interparental conflict in children and adolescents, as well as the development of

sounder interventions to help these parents handle conflict. However, since family dynamics and the level of danger reported in a community sample might be quite different from those reported in a sample experiencing high levels of interparental conflict (Schermerhorn et al., 2008), in such a sample, a different factor structure of the SIS scale could have been found. In fact, although not distorting the measure of the construct of emotional security, our structure does not fully replicate the original model. It is worth noting there was a different number of identified factors and an expressive reduction of the original items in this adapted version of the SIS scale to a sample of Portuguese adolescents. The low to moderate levels of exposure to interparental conflict of our sample can explain the non-emergence of the original version's Behavioural Dysregulation and Destructive Family Representations dimensions, as well as the other dropped items' low loadings and cross-loadings that led to their exclusion. In fact, lower levels of destructive interparental conflict might be associated with higher levels of stability and support in the family system that help diminish the sensitivity of the emotional security system, thus preventing children's and adolescents' insecurity in the interparental relationship. Oppositely, experiencing recurrent family threats posed by higher levels of destructive conflict between parents, without opportunities for solace, might amplify the sensitivity of the defense system, intensifying children's and adolescents' insecurity reactions (Davies & Woitach, 2008).

Two other interdependent aspects might be underlying the item's mortality: 1) intercultural differences regarding the definition of emotional insecurity, and 2) the potential social desirability that could have influenced the participants' responses. In fact, intercultural differences regarding the acceptability of conflicts between parents or what is considered appropriate interparental interactions may account for differences in the children's and adolescents' patterns of reactions to interparental conflict across different cultures. For example, in Hispanic families - with which Portuguese families share many values and beliefs, particularly regarding the primacy of the family unit (Taylor, 1996) - characterized by extended family networks that broaden children's sources of support, children may be less vulnerable to experience emotional insecurity in face of interparental conflict (McLoyd, Harper, & Copeland, 2001). This can promote a greater tolerance towards arguments between parents, thus broadening the range of acceptable interparental conflict interactions. Even though our results suggest that our adapted version of the SIS scale is generally measuring the same dimensions of emotional insecurity in the interparental relationship, it is important

to consider the possibility that the description of the emotional, cognitive, and behavioural reactions to interparental conflict may have been read and interpreted differently by the Portuguese children and adolescents compared to the original sample, possibly leading to a biased interpretation of the items and thus making some items ambiguous. As for the possibility of interference of social desirability on the participants' responses, one of the limitations of self-report measures has been precisely the fact that the way some participants read and interpret the items may lead them to answer more in accordance to what they perceive to be socially acceptable, thus distorting the real situation (Stowman & Donohue, 2005) and leading to potentially biased results (e.g., faking good).

Additionally, we consider that the dimensions Behavioural Dysregulation and Destructive Family Representations, despite failing to be represented in our factor structure, would still be important for the measurement of the emotional security construct, not just for research purposes, but in clinical settings as well. The absence of these dimensions in our adapted version of the SIS scale somewhat reduces its potential for a comprehensive assessment of emotional security in all scopes. Therefore, further validation of the SIS scale using larger samples with higher levels of exposure to interparental conflict is worthwhile.

Despite the aforementioned limitations, results indicated the adapted version of the SIS showed an acceptable fit to this study's data, thus supporting it as a valid and reliable measure to assess specific dimensions of emotional insecurity in the interparental relationship in the context of our sample of Portuguese children and adolescents. The satisfactory psychometric characteristics found in this adaptation of the SIS scale highlight the potential of this tool to be used with this population. Although these results are relevant regarding the assessment and conceptualization of emotional insecurity with this specific sample, offering initial support for the cross-cultural factor validity of the SIS, a more refined investigation is needed to address some limitations of this adaptation study. Specifically, there was no data focused on convergent validity, which could be analysed in the future in order to provide additional support to the scale's psychometric properties. Some dimensions of the SIS need to be improved in terms of internal consistency. The SIS scale was developed with the aim of providing a reliable measure of emotional insecurity for both research and clinical practice purpose, but adaptations of this instrument to other cultures are needed.

3.2. Interparental conflict and children's and adolescents' self-representations

A second goal of this study was to analyse of the specific roles that processes emphasized by the emotional security theory may play in understanding the associations between interparental conflict and children's and adolescents' self-representations (SR). In the first model, several dimensions of children and adolescent emotional insecurity were analysed as potential mediators integrated within one global mediation model (e.g., emotional reactivity, internal representations, and behavioural regulation of exposure to interparental conflict). The second model consists of the analysis of the mediating role of children's and adolescents' perceptions of their relationship with their mothers and with their fathers, in terms of support and negative interactions, in the association between their experiences with interparental conflict and their SR. Therefore, this study extends previous research by examining the role of children's and adolescents' emotional insecurity, and perceived relationships with both their parents, in the relationship between interparental conflict and children's and adolescents' domain specific SR, considering their specific cognitive content. Thus, it broadens the range of child and adolescent outcomes linked with interparental conflict in process-oriented research guided by the emotional security theory (EST; Cummings & Davies, 2010; Davies & Cummings, 1994).

3.2.1. The mediating role of emotional insecurity

In the present study, interparental conflict was linked with several dimensions of children's and adolescents' emotional insecurity reactions (i.e., emotional reactivity, conflict spillover representations, withdrawal strategies, and constructive family representations), which in turn were linked to several domains of children's and adolescents' SR. SEM results revealed full mediation of emotional reactivity and withdrawal reactions in the relation between interparental conflict and children's and adolescents' emotional and physical appearance SR, and full mediation of conflict spillover representations and constructive representations in the relation between interparental conflict and instrumental SR. These findings demonstrate an important role for these specific aspects of emotional insecurity in associations between interparental conflict and their SR, thus supporting the emotional security hypotheses (Cummings & Davies, 2010; Davies & Cummings, 1994).

Higher levels of children's and adolescents' emotional insecurity, particularly through heightened emotional arousal and withdrawal reactions in the face of interparental conflict, predicted less favourable SR in the emotional and physical appearance dimensions. In other words, these children and adolescents tended to represent themselves as sadder, lonelier, angrier, and less attractive. Also, higher levels of spillover representations regarding interparental conflict predicted less favourable SR in the instrumental domain. That is, these children and adolescents tended to represent themselves as overly less organized, responsible, hard-working, and as messier and more misbehaved. According to the EST, repeated exposure to interparental conflict can undermine the children's and adolescents' sense of security in the interparental relationship, and therefore within the family. In line with this premise, these findings suggest that children and adolescents who are more insecure, responding to interparental conflict with higher levels of emotional reactivity (i.e., sadness, anxiety, fear and anger), withdrawal (i.e., physically distancing themselves from it) and conflict spillover representations (i.e., feeling caught in the middle; thinking that it is their fault), may lack a secure base that a poor-functioning interparental relationship has failed to provide. Thus, it is likely that they feel less supported in their day-to-day functioning and less confident about themselves and their relationships with others.

The results regarding the effects on children's and adolescents' emotional and instrumental SR can be seen as quite predictable. Indeed, higher levels of negative affect responses to interparental conflict (e.g., sadness, anger) have been consistently associated with increased vulnerability to emotional dysfunction (e.g., Rhoades, 2008). Hence, it is easily understandable that such reactions to interparental conflict may foster SR such as sad, angry and lonely. Similarly, higher spillover representations, such as thinking that it is one's fault that parents argue with one another, may prompt children and adolescents to represent themselves as less responsible and organized, or as more misbehaved, for example. As for the mediating role of emotional insecurity in associations between interparental conflict and physical appearance SR, this finding has an increased interest, considering the development period of the children and adolescents participating in this study. Indeed, changes in physical appearance are one of the most visible kind of transformation during the developmental period between 10-11 and 15-16 years old, and have important implications in how children and adolescents think of themselves (Harter, 2000, 2015; Martins, 2013). Their body image mirrors the quick transformations they undergo during this period, and, therefore, selfevaluations of body image are particularly relevant during this stage (Pruzinsky & Cash, 1990). This can help explain why this SR domain can be, hand in hand with the emotional

domain, particularly vulnerable to the impact of increased emotional insecurity in the interparental relationship, manifested by greater emotional reactivity and withdrawal reactions in the face of interparental conflict.

The mediational pathway between interparental conflict and children's and adolescents' instrumental SR through constructive representations of the conflict showed a different pattern. Higher levels of interparental conflict predicted lower levels of constructive family representations, and lower levels of such representations, in turn, predicted more favourable instrumental SR. The second part of this mediational path might at first sight seem surprising and unexpected, given that, on itself, this association would be expected to be positive (i.e., lower levels of constructive representations predicting less favourable instrumental SR). However, when reflecting upon the whole mediational pathway, this sequence of effects emerges as rather plausible. Indeed, in the context of higher interparental conflict, lower levels of constructive representations might reflect a more accurate, adaptive and realistic perspective of family functioning and dynamics, which may help these adolescents build a more positive instrumental/functional self-image in order to cope successfully with interparental conflict (e.g., self-regulating their behaviour in interparental conflict situations). In effect, the activation of children's and adolescents' regulatory response processes towards interparental conflict can have an important adaptive value, by helping them cope with conflict between parents (Cummings & Davies, 2010).

In particular, children's and adolescents' representations allow them to process the meaning of interparental conflict for the overall family life and, therefore, serve as monitoring systems for identifying interparental behaviours that may be threatening to their own welfare and the family stability (Cummings & Davies, 1996; Davies, Harold, et al., 2002), leading to the need to increase one's sense of functional instrumental control, for example through behaviours intended to diminish conflict (i.e., agentic behaviours) (Schermerhorn, Cummings, DeCarlo, & Davies, 2007). Children and adolescents with a better instrumental self-image, that is, who perceive themselves as more responsible, organized, hardworking, well-behaved and neater, are more likely to have a stronger sense of functional control and, thus, be more successful in coping with interparental conflict. This is in line with the phenomenon of adaptive instrumental parentification, in which children and adolescents assume adult-like instrumental responsibilities that are time-limited, acknowledged, and not emotionally or physically overburdening, involving activities that

contribute to fulfil the physical needs of the family, such as cooking, grocery shopping, or dressing siblings (Jurkovic, 1997; Jurkovic, Jessee, & Goglia, 1991). In crisis situations, this process is often considered adaptive because it offers the opportunity to foster responsible behaviour and develop desirable characteristics that may be useful for future roles (Chase, 2001) and be incorporated in self-concept as positive SR.

Taken together, these findings support previous claims regarding the importance of family factors in the construction of adolescents' SR (e.g., Harter, 2015; Lewis, 1990; Markus & Cross, 1990). Consistent with past model tests (for a review, see Rhoades, 2008), emotional insecurity was indicated as an explanatory mechanism, suggesting that children's and adolescents' responses in the context of interparental conflict have important implications for their SR.

The hypothesized finding of a higher preponderance of emotional and cognitive reactions as intervening mechanisms linking interparental conflict to children's and adolescents' SR, as compared to behavioural reactions, suggest the influence of cultural factors, and may be interpreted in light of the familism construct. Familism, broadly defined as a strong identification with and attachment to family, is an important cultural value of Latino cultures (Sabogal, Marín, Otero-Sabogal, Marín, & Perez-Stable, 1987), which include Portuguese people. It emphasizes an ideal for family relationships to be warm, close, and supportive, and the subjugation of self for the family (e.g., Steidel & Contreras, 2003; Sabogal et al., 1987). Although familism can often be protective (Stein et al., 2014), it can also potentiate detrimental child and adolescent outcomes in stressful family contexts (East & Weisner, 2009). The findings of this study emphasize a preponderant role of emotional and cognitive reactions, as compared to behavioural reactions, in associations between interparental conflict and children's and adolescents' SR, and suggest that although interparental conflict predicts emotional distress, the *respeto* cultural norm in Latino cultures (Valdés, 1996) may inhibit children's and adolescents' overt behavioural reactions to interparental conflict.

The associations found between interparental conflict and children's and adolescents' responses of avoidance by inhibition, avoidance by withdrawal, and involvement also suggest the influence of these cultural aspects. Regarding the avoidance reactions, on the one hand, both types of reactions are strategies of limiting one's exposure to interparental conflict situations. In effect, in the original version of the SIS scale, these two kinds of responses

compose the same avoidance dimension (Davies, Forman, et al., 2002). On the other hand, the fact that inhibition was not significantly predicted by interparental conflict, while withdrawal was, supports the distinction between the two dimensions. As Gilbert (2001) noted, while some children and adolescents may exhibit a more camouflaging pattern of insecurity, characterized by the inhibition of behavioural displays of distress, others may express insecurity through the demobilizing strategies of disengagement. This distinction might be particularly relevant to the Portuguese people, given its traditional orientation to the valorization of obedience and respect towards intergenerational differentiation and hierarchy (Rodrigues, 1994), which calls for more passive behaviours in dealing with interactions with and between adults. It can be argued that inhibition may be more culturally reinforced and generalized, while withdrawal behaviours can be considered somewhat more deviant. The lack of a significant relation between interparental conflict and both inhibition and involvement responses may reflect the Portuguese cultural trend towards passivity and conformity (Benavente, Mendes, & Schmidt, 1997) in parent-child relationships (Rodrigues, 1994).

In addition, the positive associations between children's and adolescents' involvement and inhibition behaviours and several domains of their SR (i.e., instrumental, social, emotional and physical appearance) are consistent with reported associations between familism and positive outcomes, such as prosocial behaviour (Calderon-Tena, Knight, & Carlo, 2011) and well-being (e.g., Schwartz et al., 2010). The closeness of relationships and social support that often characterize involvement behaviours (e.g., comfort, try to solve the problem) and the subjugation of oneself inherent to inhibition behaviours (e.g., not interfering) are consistent with familism. These cultural characteristics may account for an adaptive value of these behaviours, which seem to nourish the construction of favourable SR in this population.

3.2.2. The mediating role of perceived relationship with parents

In this study, interparental conflict was also associated with children's and adolescents' perceptions of lower levels of support and higher levels of negative interactions in their relationship with their mothers and their fathers. Perceived support and negative interactions in both the mother-child and father-child relationships were, in turn, also linked with worse children's and adolescents' SR in several domains. These findings support the

premises of the symbolic interactionism framework (Cooley, 1902) regarding the relevance of significant others in the construction of children's and adolescents' SR, and are in line with previous research accounting specifically for the importance of parent-child relationships in this process (Crocetti et al., 2017; Plunkett et al., 2007; Scabini & Manzi, 2011). Results also support the spillover hypothesis about the link between interparental conflict and child/adolescent outcomes (Erel & Burman, 1995). Thus, this study contributes to advance the existing knowledge on the intervening role of parenting in associations between interparental conflict and children's and adolescents' SR.

More specifically, the results revealed that the relation between interparental conflict and children's and adolescents' domain specific SR was mediated by their perceptions of: 1) support in the mother-child relationship, related to instrumental, social, emotional, physical appearance, and intelligence SR - that is, children and adolescents reporting higher levels of interparental conflict perceived lower levels of support in their relationships with their mother, and, consecutively, tended to represent themselves as, for example, less responsible and hardworking (i.e., instrumental SR); less helpful and nice (i.e., social SR); as sadder and lonelier (i.e., emotional SR); less pretty (i.e., physical appearance SR); and less smart (i.e., intelligence SR); 2) support in the father-child relationship, related to social and physical appearance SR - that is, children and adolescents reporting higher levels of interparental conflict perceived lower levels of support in their relationships with their father, and, consecutively, tended to represent themselves as, for example, less helpful, nice, and pretty; 3) negative interactions in mother-child relationship, related to instrumental and physical appearance SR - that is, children and adolescents reporting higher levels of interparental conflict perceived higher levels of negative interactions in their relationships with their mother, and, consecutively, tended to represent themselves as, for example, less responsible, hardworking, and pretty; and 4) negative interactions in father-child relationship, related to instrumental SR – that is, children and adolescents reporting higher levels of interparental conflict perceived higher levels of negative interactions in their relationships with their father, and, consecutively, tended to represent themselves as, for example, less responsible and hardworking.

Taken together, these findings suggest that difficulties in the interparental relationship spillover to the parent-child relationship with negative consequences for children's and adolescents' SR construction. Children's and adolescents with worse perceptions of their

relationships with their mothers and fathers in terms of support and negative interactions may lack a secure base due to a poor-functioning interparental relationship, and may feel less supported in their day-to-day functioning and less confident about themselves (Cummings & Davies, 2010). Such diminished perceived support and confidence may reflect on more negative SR. These findings are consistent with the symbolic interactionism framework (Cooley, 1902; Burr, Leigh, Day, & Constantine, 1979) by showing that children's and adolescents' SR are associated with their interactions with significant others (i.e., their parents). This suggests that as children and adolescents observe and interpret the reactions of their parents to their behaviour, they progressively internalize those responses in their self-knowledge. So, the results suggest that, in the context of greater interparental conflict, children's and adolescents' perceptions of less support and more negative interactions in their relationships with their parents may symbolize to them less positive appraisals of them. Thus, these children and adolescents may also come to appraise themselves more negatively.

Interestingly, the pathways from interparental conflict to children's and adolescents' different SR domains, through their perceptions of the relationship with their parents varied not only across the support and negative interactions dimensions, but also between the two relationships considered (i.e., mother-child and father-child) and across the different SR domains as well. These different patterns may reflect specificities of dimensions of the parent-child relationships, of the mother-child and father-child relationships, and of the different SR domains, that are worth discussing in more detail.

On the one hand, these differences suggest that the two parent-child relationship aspects are indeed distinct and somewhat complementary. While support is conceived more as a social provision, negative interactions are more indexes of the structural nature of the interpersonal relationship (Furman & Buhrmester, 1985). For example, the positive associations between children's and adolescents' perceptions of support in the mother-child relationship and most domains of their SR do not imply that perceptions of negative interactions in that same relationship significantly predict worse SR in all those domains. This supports the notion that support and negative interactions are not bipolar opposites of a continuum but can coexist and be interlinked in the process towards more equal parent—child relationships (Brody, 1998; De Goede et al., 2009). This is in line with the separation-individuation theory (Blos, 1967) which posits that conflict with parents stimulate children and adolescents to distance themselves from parents, develop autonomy and become more

independent; although connectedness to parents remains important (De Goede et al., 2009; Zimmer-Gembeck & Collins, 2003).

On the other hand, the different mediational pathways found might also reflect differences in the characteristics of relationship mother-child and father-child relationships (Marceau et al., 2015). Considering the potential role of children's and adolescents' perceptions of both relationships, the results found in this study provide a greater emphasis of the intervening role of their perception of the relationship with their mother than with their father: although perceptions of support in the mother-child relationship functioned as an explaining mechanism in the associations between interparental conflict and almost all dimensions of SR, perceptions of support in the father-child relationship were shown to intervene in only two SR domains (i.e., social and physical appearance). Likewise, perceived negative interactions in the mother-child relationship were shown to intervene in associations between interparental conflict and children's and adolescents' instrumental and physical appearance SR, while for the father-child relationship this was only the case for instrumental SR. The preponderance of the mother-child relationship is in line with several studies that have demonstrated that mothers are closer to, and more important support providers than fathers (Seiffge-Krenke et al., 2010). Indeed, previous studies have suggested a lower level of proximity between children and adolescents and their fathers (Claes, 1998; Claes et al., 2011). Children and adolescents typically perceive less support in their relationship with their father than with their mother (Van Horn & Marques, 2000), and spend less time having intimate conversations with their father (Claes, 1998).

Still further, results also showed different patterns of associations across both parent-child relationships and SR domains. Regarding the instrumental SR, although both parents seem to be relevant, the prevalence of the role of the mother-child relationship stands out given that both dimensions of children's and adolescents' perspective of that relationship emerged as intervening mechanisms linking interparental conflict to those SR. A possible explanation might be that mothers typically have a greater involvement in everyday parenting (e.g., McKinney & Renk, 2008) which is more likely to relate to the everyday instrumental aspects of their children's lives. Children's and adolescents' perceptions of their relationship with both parents have been associated with their self-perceptions in the instrumental domain (e.g., Putnick et al., 2008), but father-child interactions are less likely than mother-child interactions to be concerned with caregiving and intimate exchanges, and more likely to

emphasize achievement, mastery, skill development and norm compliance issues (Collins & Russell, 1991; Lamb, 2004). Thus, in the context of greater interparental conflict, combining intensified negative interactions (i.e., conflict, antagonism) with both parents and mothers' undermined ability to provide support (i.e., companionship) to their children may hamper children's and adolescents' SR in these domains.

The prevalence of the mother was also observed in associations between interparental conflict and physical appearance SR. Although these findings are in line with previous research showing that both maternal and paternal support are central to body satisfaction (e.g., Salafia, Schaefer, & Haugen, 2014), they are also in line with other studies showing that the mother-child more than the father-child relationship is central do body satisfaction (e.g., Li, Bunke, & Psouni, 2016; Sira & White, 2010). Social SR seem to be equally vulnerable to difficulties in both the mother-child and father-child relationship, in the context of diminished perceived support. Indeed, the link between a supportive and affectional bond with both parents and social competence and self-valuations across both childhood and adolescence has been well established in the literature (Erel, Oberman, & Yirmiya, 2000; Yu & Gamble, 2009).

As for emotional and intelligence SR, only perceived support in the mother-child relationship emerged as relevant in the link between interparental conflict and those SR. Regarding emotional SR, these findings are in line with previous research showing that the quality of the support in the mother-child relationship is associated with emotional functioning in adolescents (e.g., Helsen, Vollebergh, & Meeus, 2000; Nelemans et al., 2016). Indeed, the mother is often referred to as the center of the family, and as the main source of understanding and intimacy (Seiffge-Krenke et al., 2010). At the same time, as mentioned previously, father-child interactions are less likely than mother-child interactions to include caregiving and intimate exchanges (Marceau et al., 2015), which may be underlying the lack of a significant role of perceptions of father-child relationship in associations between interparental conflict and these emotional SR. Concerning intelligence SR, the exclusive role of the mother-child relationship may be related with the typical greater involvement of mothers in everyday aspects of children's and adolescents' lives (e.g., McKinney & Renk, 2008), namely aspects related to academic performance. Thus, there may be more opportunities for feedback communication regarding intelligence SR in mother-child relationship than father-child relationship. Finally, opposition SR were exclusively

associated with children's and adolescents' perceptions of the father-child relationship, specifically regarding perceived negative interactions. This may be because fathers, more than mothers, are more likely to emphasize norm compliance issues in their interactions with their children (Collins & Russell, 1991; Lamb, 2004).

Overall, the magnitude of the effect sizes of the analysis reported in the present sample suggest that other constructs may be relevant in explaining how interparental conflict is associated with children's and adolescents' SR. More specifically, results of the present analyses, taken together with previous findings (Silva et al., 2016a), support the assumption that the two pathways proposed by EST (Cummings & Davies, 2010), through which interparental conflict affects multiple developmental outcomes in children and adolescents, may be viewed as complementary. Indeed, the intervening role of several emotional insecurity dimensions on different SR dimensions has been supported, thus supporting the first EST mediational pathway outlined above (Silva et al., 2016a). In the present analysis, the link between interparental conflict and children's and adolescents' SR was examined considering the other mediational pathway proposed by EST, that is, through dimensions of the parent-child relationship. Results of both analyses emerge as complementary, by suggesting that features of both constructs – emotional insecurity and perceived parents-children relationships – mediate the link between interparental conflict and several domains of children's and adolescents' SR.

Comparing the relative effect sizes across dimensions of SR, results suggest that children's and adolescents' instrumental, social, emotional, physical appearance and opposition SR seem to be the most dependent on family relationships both in the interparental as well as the parent-child subsystems. However, regarding the opposition SR, although perceived negative interactions in the father-child relationship predict more negative SR in this domain, it may be that the normative increase in differences of opinion and questioning of parent authority in the process of separation-individuation (e.g., De Goede et al., 2009) may overrule most parent-child relationship dimensions in predicting children's and adolescents' opposition SR (i.e., stubborn and grouchy). The comparatively smaller effect size obtained for the intelligence SR suggest that this SR domain may be even more dependent of other factors, such as children's and adolescents' school achievement, classroom motivation, teacher's ratings of academic performance, and classroom educational practices (e.g., Ryan & Deci, 2009; Harter, 2006b).

In sum, in line with past model tests (e.g., Siffert et al., 2012) the findings here reported support the importance of parent-child relationship factors, namely dimensions of support (i.e., companionship, instrumental aid, intimate disclosure) and negative interactions (i.e., conflict, antagonism), as explanatory mechanisms linking interparental conflict to children's and adolescents' SR. In addition, these findings support the expectation that both mothers and fathers are important for children's and adolescents' SR, in line with previous studies on the relationship between parent-child relationships and self-esteem (Bulanda & Majumdar 2009; Milevsky, Schlechter, Netter, & Keehn, 2007).

3.3. Limitations and strengths

Given the scarcity of previous process-oriented research on the link between interparental conflict and children's and adolescents' SR, both through children's and adolescents' signs of emotional insecurity and dimensions of the parent-child relationship, these findings must be interpreted bearing in mind the study's limitations. First, this study does not eliminate the possibility of shared method and informant variance in the findings, since reliance exclusively on children's and adolescents' reports may have inflated the relationships between the variables included in the models. However, there is a consensus in current theory and research in that the meaning of conflicts can be most clearly discerned from the multiple dimensions of children's and adolescents' responding, including emotional, behaviour and cognitive reactions to conflict behaviours (Davies & Cummings, 1994; Harold et al., 2004). Regarding the perceptions of parent-child relationships, parents' and children reports tend to differ (Vierhaus & Lohaus, 2008). However, research has suggested that children and adolescents are more accurate than parents in reporting their relationships, especially regarding unpleasant aspects such as conflict and antagonism (Collins & Laursen, 2004). Still, an important step for future research would be to replicate these results with multi-informant questionnaires (e.g., parents' reports on interparental conflict and children's and adolescents' emotional insecurity responses) and multiple methods (e.g., observations of interparental conflict interactions and parent-child interactions), which could give more information on the nature of these relationships.

In addition, since this was a cross-sectional study, it can provide support for a meditational model but precludes an analysis of the temporal relationships among the variables, and therefore limits inferences about the causal relationships between them. There

is a wide body of existing evidence supporting the mediating role of emotional insecurity in the effects of interparental conflict and multiple and diverse child/adolescent adjustment outcomes, which suggests that the effects direction from emotional insecurity to adolescents' SR is a plausible assumption. Also, both cross-sectional and longitudinal studies have supported the direction of effects from interparental conflict to dimensions of the parent-child relationship, and from these to multiple child and adolescent outcomes, including self-esteem and several features of self-concept (e.g., Missotten et al., 2011; Siffert et al., 2012; Wijsbroek, Hale, Raaijmakers, & Meeus, 2011). However, at least some of these relations may indeed be bi-directional. Therefore, future studies should use longitudinal designs in order to seek more stringent evidence for the ordering of effects assumed in this study, and advance existing knowledge and understanding of the pathways between and among interparental conflict, emotional insecurity dimensions, children's and adolescents' perceptions of parent-child relationships and their domain specific SR. Also, in the first mediation model presented, five of the six fit indices indicated a good model fit and one index (i.e., CFI), though very close, was only marginally adequate. However, as stressed by Kenny and McCoach (2003), CFI tends to worsen as model complexity increases. Although the inclusion of multiple mediators contributed to this complexity, this option allows a better unravelling of competing mechanisms against each other (Hayes, 2013; Jose, 2013).

Despite these limitations, this study has made a significant advance in understanding the relations between interparental conflict, children and adolescent emotional insecurity and their SR, and has important implications for theory, research and practice. It is the first empirical effort to address the role of emotional insecurity in associations between interparental conflict and children's and adolescents' SR, and to consider specifically the cognitive aspect of SR in this area of research. One methodological strength worth noting is that it tested the relationship of each proposed mediator with the dimensions of SR simultaneously, offering the possibility of assessing their specific association with each dimension of SR. Although the emotional insecurity model hypothesizes that some degree of interdependency is expected among the various response processes proposed by EST, each one of them represents distinctive features of emotional insecurity. Indeed, the pattern of results obtained in this study supports the multidimensional nature of emotional insecurity, measured with the SIS scale, and highlights the value of examining the specific potential roles of the different response domains of emotional insecurity. In line with the findings

obtained in the SIS development study (Davies, Forman, et al., 2002), the pattern of associations between interparental conflict and the emotional insecurity dimensions in the present study varied across different response processes. More specifically, the avoidance by inhibition and involvement dimensions were not significantly associated with interparental conflict, which is consistent with previous studies that have found inconsistent or nonsignificant associations between reports of interparental conflict and the avoidance and involvement responses (e.g., Cummings & Davies, 1998; Gordis, Margolin, & John, 1997).

Basing on the results obtained in this study, we contend that cultural aspects may underlie these inconsistencies in the literature. Therefore, in future studies, it would be interesting to analyse the mediating role of the several emotional insecurity dimensions in associations between interparental conflict and children's and adolescents' SR in different cultural contexts. This would allow the identification of similarities and/or differences in the mediational pathways between different cultures. Cultural variations may account for differences between the role of some features of emotional insecurity. Specifically, it would be interesting to analyse the moderating role of familism in the mediational pathways linking interparental conflict, emotional insecurity and multiple outcomes in childhood and adolescence.

This study was also the first empirical effort to address the role of children's and adolescents' perception of their relationship with both their mothers and fathers in relations between interparental conflict and their domain specific SR. Examining the unique contributions of children's and adolescents' perceptions of relationships with their mother and father in separate models is a methodological strength of the study that allows addressing the problem of shared predictive ability that arises when using the approach of identifying the unique contributions of both perceptions in the same model. Although such an approach would allow assessing whether mother-child or father-child relationships have a higher explanatory power than its counterpart, it would ignore the predictive ability shared with the perceptions of the relationship with the other parent, stemming from the often moderate to high correlations between the perceptions of both relationships (Stolz, Barber, & Olsen, 2005). This offers the possibility of assessing specific combinations of associations among interparental conflict, features of both relationships and each domain of children's and adolescents' SR, and thus a better understanding of the differences between the roles of the proposed mediators and between the role of mothers and fathers on the different SR domains.

Moreover, the fact that our sample is a community one, with low to moderate levels of conflict, can also be viewed as strength of this study. As mentioned before, interparental conflict - conceptualized as any dispute, disagreement or expression of unpleasant emotions regarding everyday interparental issues - is a normal and inevitable occurrence in interparental relationships (Cummings & Davies, 2010). Thus, studies with normative samples can be important contributions to the understanding of how the emotional security system and the parent-child relationship operate in associations between interparental conflict and children's and adolescents' SR, with important practical implications. Namely, such studies can provide important clues for promoting the early detection of the harmful influence of interparental conflict, reducing the risk of harmed children's and adolescents' SR and their negative consequences on several adjustment outcomes in community samples, such as internalizing and externalizing problems (e.g., Cole, Jacques et al., 2001; Jacobs et al., 2003; Salmivalli & Isaacs, 2005). These studies have also the potential to inform the development of more sound interventions to help parents handle conflict in a more constructive way and maintain adequately supportive relationships with their children. Considering that the emotional insecurity in the interparental relationship and the quality of parent-child relationships substantially contributes to children's and adolescents' SR (e.g., Putnick et al., 2008), the findings and conclusions of such studies can have a significant prevention value. The practical implications of the findings reported in this chapter will be thoroughly explored in the last chapter (i.e., Chapter VI - Conclusions).

3.4. Concluding remarks

This study extended previous research by examining the role of children's and adolescents' emotional insecurity, and perceived relationships with both their parents, in the relationship between interparental conflict and children's and adolescents' domain specific SR, considering their specific cognitive content. Thus, it broadens the range of child and adolescent outcomes linked with interparental conflict in process-oriented research guided by the emotional security theory (EST; Cummings & Davies, 2010; Davies & Cummings, 1994). This study adds knowledge to the role of dysfunctional family processes on SR construction during the developmentally vulnerable period of early and middle adolescence (e.g., Harter, 2015; Lewis, 1990; Markus & Cross, 1990). Specifically, consistent with past model tests (e.g., Rhoades, 2008; Siffert et al., 2012), emotional insecurity and parent-child relationship factors were indicated as explanatory mechanisms linking interparental conflict to children's

and adolescents' SR. Results of this study also supported the expectation that both mothers and fathers are important in this process, in line with previous studies relating features of parent-child relationships and other self-related dimensions, such as self-esteem (Bulanda & Majumdar 2009; Milevsky et al., 2007). Given the importance of SR in predicting behaviour and psychosocial adjustment in the long-term development (e.g., Cole et al., 2001a; Jacobs et al., 2003; Salmivalli & Isaacs, 2005), it is important to complement this chain of associations, by analysing the implications of children's and adolescents' domain specific SR on their psychosocial and academic functioning. We will address this issue in Chapter V of the present thesis.

CHAPTER IV

THE LOOKING GLASS SELF IN THE CONTEXT OF CHILD AND ADOLESCENT MALTREATMENT

I. Theoretical Framework

1. Conceptualization of child and adolescent maltreatment

From ancient to modern civilizations, diverse cultures and societies have revealed differences in their beliefs regarding child and adolescent maltreatment (Barnett, Manly, & Cicchetti, 1993). The international estimates on the occurrence and prevalence of that phenomenon reflect such differences, by varying according to the definitions of child and adolescent maltreatment adopted in the different countries, among other factors (World Health Organization, 2014). Given that these definitions play a pivotal role in decision-making on referrals and the remaining assessment process (Arruabarrena & De Paúl, 2012; Rodrigues, Calheiros, & Pereira, 2015), in the last decades, a lot of scientific work has been devoted to the conceptualization, definition and operationalization of child and adolescent maltreatment (e.g., Barnett, 1993; Calheiros, 2006; Calheiros, Monteiro, Patrício, & Carmona, 2016; English, Bangdwila, & Runyan, 2005), mostly focused on classifying it into types and subtypes and on their severity and frequency (Calheiros, 2006; Herrenkohl, 2005; Litrownik, Lau, English, Briggs, Newton, & Romney, 2005).

Overall, these studies point to a general lack of social consensus regarding what forms of parenting are dangerous or unacceptable (Cicchetti & Manly, 2001), and which inappropriate parenting behaviours should be considered maltreatment (Wolfe & McIssac 2011). Indeed, most of this research has centered on the conceptualization of the occurrence and impact of child maltreatment, and studies focused on its operationalization have been scarcer (Calheiros et al., 2016; English et al., 2005). Thus, although a relative consensus has already been achieved regarding the multidimensional conceptualization of maltreatment (i.e., encompassing physical, sexual and emotional/psychological abuse, and neglect), researchers are still struggling in their quest to clearly differentiate between poor parenting and maltreatment practices within the range of parental behaviour (Wolfe & McIssac 2011).

This endeavour is quite complex due to difficulties in establishing clear levels of severity (Barnett et al. 1993; Calheiros, 2006), with some authors arguing for diverse standards of severity according to the type of maltreatment and others focusing their criteria on the child developmental phase (Bolger et al., 1998; Cicchetti, 1989). These difficulties are also manifested in the differences in specifying degrees of severity assigned to different maltreatment types and subtypes across different groups of professionals and laypeople (e.g.,

Portwood, 1999). Given that laypeople and community professionals are the primary agents in identifying and referring risk/danger situations to the child protection system (CNPCJR, 2016; USDHHS, 2013), there is a need for integrating different social conceptions of maltreatment in its definition and operationalization. In Portugal, in 2016, well over half of the referrals to the child protection system were made by community professionals (71.7%; e.g., authority agents, healthcare workers, educators) and the remainder by non-professional (12.4%; e.g., family members, neighbours) and unclassified (16.1%, e.g., anonymous reports) sources. This referral pattern has remained consistent for the prior 6 years (CNPCJR, 2017).

The diversity of parenting practices across different countries and cultural contexts adds increased complexity to the conceptualization and measurement of child abuse and neglect (Fallon, Trocmé, Fluke, MacLaurin, Tonmyr, & Yuan, 2010). Indeed, different cultures and contexts differ not only in their conceptions of maltreatment, but also in their beliefs regarding overall parenting, and, as a result, on how they develop interventions to reduce and/or eradicate maltreatment practices (Breiner, 1990). Thus, the definition of child abuse and neglect is influenced by the beliefs characteristic of a given social context, which are reflected in how public authorities protect children and promote their well-being (Barnett et al., 1993).

Therefore, the definition of child maltreatment encompasses the consideration of three main definitional components: a) the conceptualization of the phenomenon, that is, if maltreatment is regarded as a crime, as a manifestation of parental psychopathology, as resulting from contextual circumstances, or some combination of these conceptions; b) which types of parental behaviours may be included in the concept of maltreatment, and c) the harshness of those parental behaviours, that is, how severe they must be to be regarded as abuse or neglect behaviours (Barnett et al., 1993). To that end, as previous research has highlighted, it is important to consider cultural values and social contexts in understanding the phenomenon and conceptualization of child maltreatment (Barnett et al. 1993; Calheiros 2013), given that the adoption of definitions from different socio-cultural contexts may result in assessments and interpretations of maltreatment cases that are detached from their socio-cultural reality (Calheiros et al., 2016).

Notwithstanding the potential variations in the definition of child maltreatment according to cultural attitudes, political tendencies and economic factors in this field, a common ground can be identified in child protection policies. Indeed, independently of the

cultural context, the organized responses to the problem of child and adolescent maltreatment derive from an increasing agreement regarding the importance of children's rights, a broader understanding of their vulnerabilities, a growing questioning of the appropriateness and effectiveness of physical punishment, and a widening awareness that childhood experiences have lifelong consequences (Barnett et al., 1993).

Taking into consideration the cultural/contextual aspects that influence the definition of child abuse and neglect, as well as the importance of following an integrated approach in assessing and conceptualizing maltreatment, in this work we will use a conceptualization developed in line with the international models of child abuse and neglect classification (i.e., the Maltreatment Classification Scheme; Barnett et al., 1993) and culturally adapted to the Portuguese context (Calheiros, 2006; Calheiros, et al., 2016). In the research literature in this area, two main broad categories of child maltreatment emerge: 1) abuse, which involves action; and 2) neglect, which involves omissions (Starr, Dubowitz, & Bush, 1990). According to this conceptualization, four main types of abuse can be identified – Physical, Sexual, Moral-legal/educational and emotional/psychological abuse – and two main types of neglect – Failure to provide and Lack of supervision (Barnett et al., 1993; Calheiros, 2006).

Regarding the abuse types, Physical abuse refers to physically punitive acts that may present the fulfilment of children's basic emotional needs. Moral-legal/educational abuse consists of parental behaviours that may impair the proper children's development, education and social integration. Child sexual abuse refers to any sexual contact or attempted contact between the caregiver or another adult who cares the child and that child aiming the adult sexual gratification, which could include physical or psychological coercion (Barnett et al., 1993; Calheiros, 2006). As for the physical neglect types, Failure to provide consists of caregivers' omissions on basic or minimum care practices that meet the child's physical needs (e.g., hygiene, clothing or food), while Lack of supervision includes caregivers' omissions regarding their child's safety, considering their developmental needs (Barnett et al., 1993; Calheiros, 2006).

Although the frequent co-occurrence of different types of abuse and neglect makes the evaluation and intervention complex and quite difficult task, as well as the understanding of their impact on child development, there is strong evidence regarding the negative consequences of maltreatment experiences on child and adolescent outcomes in several areas (Barnett et al., 1993; Cicchetti, 1989), including their self-system. Indeed, given that child

maltreatment involves marked distortions in the "average expectable" caregiving environment (Cicchetti & Lynch, 1995; Rogosch, Cicchetti, Shields, & Toth, 1995), the study of the effects of maltreatment can significantly contribute to a greater understanding of the relation between parenting/caregiving and self-system processes. Thus, the next section will focus on documenting the existing evidence of the associations between maltreatment experiences and children's and adolescents' self-representations.

2. Maltreatment experiences and children's and adolescents' self-representations

In general, negative parenting lead to disturbances in the self-system (Toth et al., 1997). As mentioned earlier in the first chapter, caregivers who are rejecting, punitive, or neglectful, are likely to cause their children to develop poor images of themselves (Harter, 1998a, 2015). Such negative self-representations, inculcated in hostile family environments, become automatized (Siegler, 1991), and increasingly resistant to change. If caregivers give mostly negative feedback regarding children's behaviour and characteristics, then there is little support for the normative integration of positive and negative attributes. Thus, children in the earlier phases of abstract thinking development (i.e., 8 -10 years old) may not advance cognitively, and instead remain at the level of all-or-none thinking, viewing themselves in an overwhelmingly negative way. In addition, neglectful parents, lacking in responsiveness, nurturance, encouragement and approval, are less likely to support the development of their children's autobiographical memory, through the construction of narratives. This causes children to manifest an impoverished self, lacking substance (i.e., diversity of attributes), self-coherence, and future orientation (Harter, 2015).

Abusive parents, in particular, often set unrealistic performance expectations that, because they are unattainable, cause feelings of personal failure in their children. The experience of competence and autonomy are basic needs and essential to a healthy psychosocial functioning (Deci & Ryan, 1991, 2000). Parents who are overly controlling or intrusive prevent their children of such experiences thus diminishing children's opportunities to construct self-representations that reflect competence. This is a development goal also highly emphasized by attachment theorists, who have observed that children who experience parents as emotionally available, loving, and supportive of their mastery efforts will construct a model of the self as lovable and competent, while those who experience attachment figures as rejecting, emotionally unavailable, and nonsupportive will construct a working model of

the self as unlovable, incompetent, and generally unworthy (Bowlby, 1973; Bretherton, 1991; Bretherton & Munholland, 20008; Sroufe, 1990). And, indeed, it is considerably consensual that most maltreated children and adolescents form insecure attachments with their primary caregivers (e.g., Cicchetti, Beeghly, Carlson, & Toth, 1990; Crinttenden & Ainsworth, 1989) and, consequently, internal models of the self as inadequate or unworthy (Harter, 1998).

In the extreme, children subjected to severe and chronic abuse can come to view themselves as appalling (e.g., Briere, 1992; Fisher & Ayoub, 1994; Herman, 1992; Terr, 1991; Westen, 1993; Wolfe, 1989). Thus, more than merely constructing negative self-perceptions, they view the self as fundamentally flawed. The *Me*-self, both at the level of domain-specific self-representations and one's sense of overall self-worth, may be severely damaged. The excessively high and unrealistic parental standards that are unattainable contribute to these negative views of self (Harter, 2015). Moreover, these children and adolescents often blame themselves for their perceived flaws, and make internal, global, and stable attributions about their negative attributes (Harter, 1998a).

In sum, theorists of this field suggest that in the process of incorporating the opinions of significant others in their self-representations, maltreated children and adolescents ultimately internalize the contempt that maltreating parents communicate them (Harter, 1998a, 2015). As described previously in chapter one, the incorporation of significant others' appraisals in one's self-representations has been mostly studied through Cooley's looking-glass self hypothesis (Cooley, 1902; Nurra & Pansu, 2009). However, this process has not actually been tested yet in the context of child and adolescent maltreatment experiences. In fact, self-representations have remained rather absent from the research literature in the field of child abuse and neglect for the greater part of the last 20 years. Studying this process in this context is highly important. Given that self-representations are cognitive generalizations about the self, derived from individual and social experiences (Markus, 1977), children and adolescents with maltreatment experiences (i.e., abusive and neglectful parenting practices) are particularly vulnerable to construct negative self-representations, as a result of those traumatic social experiences and their parents' negative perceptions of them (Cook et al., 2005; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005).

Thus, testing these processes in this context may provide important clues to develop interventions that help protect these children and adolescents from those negative consequences. The LGSH emerges then as a promising framework to analyse how

maltreating caregivers' appraisals of their children are associated with children's and adolescents' self-representations. Thus, in the next section, this framework will be further explained, with a review of the research that has been conducted around it, and the existing evidence supporting and/or challenging its premises.

3. The looking-glass self hypothesis

As explained earlier in the first chapter, a substantial body of research in the field of self-construction suggests that the sources of self-knowledge are rooted in social interactions and experiences, and in how individuals perceive to be perceived by others. This process has been the focus of the Symbolic interactionism theory (Brown, 1998; Harter, 2003). The symbolic interactionists focus their analysis on the construction of self-representations, emphasizing the influence of significant others' appraisals in that process (Cooley, 1902, 1964) and of the broader socially shared values as well (Mead, 1934).

Cooley (1902) proposed the looking-glass self hypothesis (LGSH) to illustrate the influence of significant others in the process of self-representation construction. The underlying idea of this hypothesis is that individuals' self-representations reflect how they perceive to be perceived by significant others. According to Cooley (1902), self-knowledge develops through interaction and communication with specific and significant others, and reflects individuals' perceptions of how they are perceived by others. He suggests that "Our ideals of personal character are build up out of thoughts and sentiments developed by social intercourse, and very largely by imagining how ourselves would appear in the minds of persons we look up to" (Cooley, 1902, p.211). Thus, the construction of self-representations involves: how we imagine we are perceived by others, what we imagine about others' appraisals, and how we feel about ourselves, like pride or shame/humiliation (Cooley, 1902). In addition, it is posited that the primary groups are particularly important for individuals' development, and for the construction of the self. Cooley (1902) wrote "By primary group I mean those characterized by intimate face-to-face association and co-operation. They are primary in several senses, but chiefly in that they are fundamental in forming the social nature and ideals of the individuals..." (p. 23). The importance given to primary groups reinforces the idea of significant others' influence, and that this influence is thought to occur in close and significant relational contexts.

Kinch (1963) later systematized Cooley's ideas, by proposing a model, according to which other's actual appraisals exert a direct effect on how the individual perceives that others perceive him/her (i.e., others reflected appraisals), which in turn influences the individuals' self-representations. In other words, self-representations are indirectly influenced by others actual appraisals, through others' reflected appraisals (Kinch, 1963; Shafer & Keith, 1985; Shrauger & Schoeneman, 1979). Given that one of the key elements of the LGSH is the relationship between others actual appraisals and others reflected appraisals (Kinch, 1963; Mead, 1934), it is necessary a certain degree of precision or agreement between others' reflected appraisals and others actual appraisals so that the process hypothesized by the LGSH can take place. Indeed, contemporary approaches to the LGSH assume that "symbolic interactionism implies that there should be at least some accuracy in persons' perceptions of how others see them" (Felson, 1985, p. 72).

However, two important meta-analyses in this field of research (Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979) have found little support of the LGSH. Specifically, Shrauger and Schoeneman (1979) found that while the association between others' reflected appraisals and self-representations is often found, the association between others' actual appraisals and both reflected appraisals and self-representations is not consistently supported. Years later, Kenny and DePaulo (1993) found similar findings regarding the association between others' actual appraisals and others' reflected appraisals. These findings led the authors to conclude that individuals are not very precise in their perceptions of others' appraisals of them. The inexistent or inconsistent relationship between others actual and reflected appraisals substantiates the main critic to the LGSH and has raised an important research problem in this field, focused on others' reflected appraisals precision. In the next section, this issue is further explored, with an emphasis on the alternative explanations that have been proposed for the lack of reflected appraisals precision found in several studies.

3.1. Reflected appraisals accuracy

Reflected appraisals' accuracy refers to the agreement between others' actual appraisals and reflected appraisals (Cook & Douglas, 1998; Kenny & DePaulo, 1993; Jussim, 2005). It is a key element of the LGSH, given that if the association between others' actual appraisals and others' reflected appraisals is not supported, then the assumption that self-representations are constructed through that process does not stand. This phenomenon has

been focused by studies in the field of person perception, mainly grounded on the social relations model (Social Relations Model - SRM; Kenny, 1995; Kenny & La Voie, 1984), a statistical analysis model developed to identify the level (or levels) of precision in person perception.

Grounded on this model (Kenny & La Voie, 1984; Warner, Kenny, & Stoto, 1979), Kenny and DePaulo reviewed eight studies, developed with adults (without any family ties between them), which analysed the precision of the interpersonal perceptions (Kenny & DePaulo, 1993). Overall, a general precision in reflected appraisals was identified: when people interacted with different individuals and then indicated their reflected appraisals (i.e., what he/she thought that they through of them), these were substantially consistent to each other. However, the observers' actual appraisals of the same target did not present the same consistency; they differed from observer to observer. The authors concluded that people know how they are generally perceived by others in general, but have difficulty discerning how they are uniquely perceived by specific others, at least in studies with adults.

One of the main explanations that have been proposed to account for the lack of reflected appraisals precision focus on communication related problems, given that not all others' actual appraisals are explicitly communicated (e.g., Felson, 1989). On the other hand, the problem may also reside in how the information that is communicated is processed by the target individual. It has been suggested that individuals tend to focus their attention on the aspects that are consonant with their prior self-representations, which thus results in a projection or fake consensus effect, in that individuals tend to think that others perceive them as they perceive themselves (Kenny & DePaulo, 1993; Newcomb, 1961; Shrauger & Schoeneman, 1979). In addition, even when other's actual appraisals are clearly communicated, that feedback may not be integrated, given that individuals may not pay attention to that information or consider it relevant. For example, in another study with adults, participants were asked to report how they had acquired their self-knowledge, and mentioned that they had relied more of self-reflection techniques than on social feedback on their reflected appraisals or on others' actual appraisals (Sedikides & Skowronski, 1995).

As another alternative explanation for the association between self-representations and reflected appraisals, it has been suggested that these may be the result of an assumed reciprocity effect, that is, if someone thinks that a given person is nice, he/she might also think that person also perceive him/her as nice. In the studies reviewed by Kenny and

DePaulo (1993) only two dimensions (affective and evaluative) supported this idea, and in another study with adolescents, this effect was not found (Cook & Douglas, 1998).

In sum, research about reflected appraisals accuracy has shown that, in general, individuals are not very precise at the dyad level (i.e., in what concerns the appraisals exclusive of a given relationship) and has offered little support of the LGSH, at least in studies with adults. However, despite the alternative explanations proposed to how self-representations are constructed and to the role of others' influence, Kenny and DePaulo (1993) also recognize that, in some conditions, others' influence can in fact be significant, suggesting that "Over the course of development, children may indeed construct their self-concepts at least in part from their beliefs about how they are viewed by others" (p. 157).

Indeed, one of the strongest arguments on behalf of the LGSH is that this hypothesis has not always been tested in contexts where the specific others considered are in fact significant to the target individuals, which may underlie the weak or inexistent relationship among the elements of the hypothesis. Some researchers have argued that tests of the LGSH in a laboratory context may account for some bias in the studies' results, given that, in such situations, the participants do not know each other. Therefore, the observers are not significant to the individual and thus may be less influent in self-representations (e.g., Cook & Douglas, 1998; Kenny & DePaulo, 1993). As mentioned earlier, Cooley (1902) argued that it is the significant others' influence that should be considered, given that "In the presence of one whom we feel to be of importance, there is a tendency to enter into and adopt, by sympathy, his judgment of ourself" (p. 175).

3.2. The influence of significant others

Although the LGSH recognizes the important role of social interactions in general in the construction of self-representations, it is also assumed that some relationships are more relevant than others in this influence process. Close relationships, such as the parent-child relationships, characterized by high levels of influence and interdependence at the behavioural, cognitive, and affective levels (Kelley et al., 1983) are theorized to be particularly influential in this process (e.g., Cook & Douglas, 1998; Nurra & Pansu, 2009). Indeed, the family has been considered as a key context, and parents as one of the main influences on children's development (e.g., Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Lerner, 2004). In the last 60 years, a substantial body of research has

supported this assumption, suggesting that the several aspects of children's development are related to how parents react to, and interact with, them (e.g., Baumrind, 1993; Holden, 1997). Parent-child relationships are at the centre of children's social network, and its influence is unique, pervasive and potentially continuous and stable (Collins & Laursen, 2009).

Thus, parent-child relationships provide the most valuable context for studying the LGSH in children and adolescents (e.g., Cook & Douglas, 1998). Besides being marked by a strong emotional connection, parent-child relationships have a set of other structural features that favours others' influence and allow individuals to have a better awareness of how others perceive them (Cook & Douglas, 1998). In these relationships, there is a greater possibility of communication and interaction, and thus more opportunities to regularly observe the clues about others' actual appraisals, which may therefore be more salient. For example, DePaulo, Kashy, Kinkendol, Wyer, and Epstein (1996) found a positive relationship between closeness and social interaction frequency. Similarly, Hensley (1996) suggested a curvilinear relation between closeness and the influence of others' actual appraisals, positing that friends and acquaintances have a clearer impact as than strangers. These arguments have prompted the development of studies on the LGSH in significant relationship contexts (e.g., studies with couples and with children and adolescents in the family context) (Bois, Sarrazin, Brustad, Chanal, & Trouilloud, 2005; Cook & Douglas, 1998; Ichiyama, 1993; Jussim, Soffin, Brown, Ley, & Kohlhepp, 1992; Kenny & DePaulo, 1993; Nurra & Pansu, 2009; Schafer & Keith, 1985; Swann, Milton, & Polzer, 2000).

In addition, it has also been suggested that the influence of significant others may be more expressive in children and adolescents, given that their self-representation construction process is still in a phase marked by intense exploration of the self and subject to significant influence of the normative developmental changes occurring in this period (Felson, 1989, Kenny & DePaulo, 1993). However, research on the LGSH has often neglected individuals' development phase. Most of the studies that criticize the process suggested by the LGSH, mentioned so far, have been conducted with college students, whose self-representations may be more consolidated and, consequently, less susceptible to the influence of others. In addition, as mentioned previously, the study of children's and adolescents' self-representation construction process is particularly relevant, given that, as children progress into adolescence, there is a normative tendency for their self-representations to become more negative, which has been associated with negative consequences in their overall well-being and adjustment

outcomes, such as emotional and social problems (Dubois & Silverthorn, 2004), depressive symptoms (Cole, Martin, Peeke, Seroczynski, & Hoffman, 1998), and aggressiveness (David & Kistner, 2000; Hughes, Cavell, & Grossman, 1997). In an attempt to address this gap in the literature, a few studies with children and adolescents have been conducted, focusing on testing the associations proposed by the LGSH. In addition, a common feature of most of these studies is that they focused on children's and adolescents' self-perceptions of competence in several domains (e.g., academic, social, athletic, physical appearance and behavioural competence).

A first generation of studies with children and adolescents in this area, including correlational (cross-sectional and longitudinal) as well as experimental studies, focused on analysing the direct associations between significant others' actual appraisals and self-representations, or the associations between the several elements of the LGSH, without actually testing the proposed mediation model (e.g., Baldwin, Carrell, & Lopez, 1990; Bellmore & Cillessen, 2006; Bois et al., 2005; Cole, Maxwell, & Martin, 1997; Eccles, 1993; Eccles-Parsons, Adler, & Kaczala, 1982; Eccles-Parsons, Kaczala, & Meese, 1982; Frome & Eccles, 1998; Halle, Kurtz-Costes, & Mahoney, 1997; Hinkley & Andersen, 1996; Jussim & Eccles, 1992; Madon, Smith, Jussim, Russell, Eccles, Palumbo, & Walkiewica, 2001; Wigfield & Harold, 1992). These studies have found strong support for the association between significant others' actual appraisals and children's and adolescents' self-representations in several domains of perceived competence, including academic, social, athletic, physical appearance, and behavioural competence. The importance of these studies comes from the demonstration of the impact of significant others actual appraisals and expectations (e.g., Shah, 2003) on how children and adolescents perceive themselves.

However, empirical support for this association alone is not sufficient to demonstrate the process suggested by the LGSH (Cooley, 1902), since it requires the analysis of all three elements of the hypothesis: others' actual appraisals, others' reflected appraisals, and self-representations (Kinch, 1963). The analysis of the mediating role of significant others' reflected appraisals in the association between significant others actual appraisals and children's and adolescents' self-representations have provided contradictory findings. On the one hand, some studies have shown that the association between actual appraisals and self-representations was not mediated by reflected appraisals (Felson, 1989; Hergovich, Sirsch, & Felinger, 2002). On the other hand, more recent studies have indeed found support for that

mediation effect (Bois et al., 2005; Martins, 2013; Nurra & Pansu, 2009). The study by Felson (1989) was however determinant in providing empirical support for the causal influence of significant others' actual appraisals on self-representations, given that its longitudinal analysis showed that parents' actual appraisals significantly impact their children's self-representations, and not the other way around. Later, another study (Bellmore & Cillessen, 2006) complemented this finding by showing significant longitudinal associations also between actual appraisals and reflected appraisals.

Despite the significant advance that the studies of Bois et al. (2005), Martins (2013), and Nurra and Pansu (2009) represent in the body of research on the LGSH, by using more sophisticated statistical analysis and demonstrating the influence process of significant others' actual appraisals on children's and adolescents' self-representations through the reflected appraisals, some questions remain unanswered. Namely, most studies testing the LGSH with children and adolescents have focused on analysing self-perceptions of competence. Thus, a social-cognitive approach of self-representations - that is, conceptualized and operationalized as self-schemas, focusing their specific cognitive content (e.g., Markus & Wurf, 1987; Oosterwegel & Oppenheimer, 2002) has been used mostly in studies with adults, and has been nearly absent from research with children and adolescents. And exception was a study developed by Martins (2013). However, this was developed with a community sample, and therefore, the processes proposed by the LGSH are still unexplored in the context of child maltreatment. Also, although previous studies have considered the multidimensional nature of self-representations, by analysing the LGSH in several domains of child and adolescent self-representations, these studies have tested each mediation analysis in isolation, not considering potential cross-domain influences (e.g., Nurra & Pansu, 2009). Given that the contemporary perspectives on the self conceptualize self-representations domains as being interrelated, considering potential cross-domain effects in the LGSH could further contribute to increase our understanding of how significant others' appraisals may influence children's and adolescents' self-representations.

Although this set of studies support significant others' appraisals influence on both reflected appraisals and self-representations, the inconsistency of the findings regarding the mediation hypothesis suggest that others' influence on self-representations is a complex phenomenon, and that some specific conditions might influence the occurrence of that mediational effect. One of the suggestions for explaining that inconsistency posits that some

significant others are more influent in some self-representation dimensions than others. For example, teachers may exert a greater influence on children's and adolescents' self-representations of academic competence given that teachers' feedback regarding students' school performance is one of the most salient aspects of teacher-student interactions. Therefore, for some self-representation dimensions, some specific others may communicate their feedback more regularly, and such feedback may be evaluated as more relevant by the target individual, thereby facilitating those specific others' appraisals influence process (Nurra & Pansu, 2009).

3.2.1. The relevance of communication with significant others

Even Shrauger and Schoeneman (1979), although not having found support for the LGSH in their literature review, had already concluded that others' appraisals influence on individuals' self-representations was stronger when individuals considered that others' feedback had credibility. Likewise, Kenny and DePaulo (1993) had also recognized that, when individuals are exposed to regular and consistent feedback by specific others, and are motivated to pay attention to that feedback, the influence of those specific others' actual appraisals on their self-representations may be stronger. These conclusions have found additional support in a later study suggesting that the opportunities of feedback communication in a specific interpersonal relationship as well as the relevance awarded to that feedback have been regarded as important conditions for others' influence on self-representations (e.g., Cook & Douglas, 1998). Indeed, communication has long been considered a facilitating dimension in that it family cohesion and adaptability (e.g., Barnes & Olson, 1985b; Olson, Russell, & Sprenkle, 1983; Olson, Sprenkle, & Russell, 1979).

Taken together, the findings of these studies suggest that the test of the LGSH in the context of parent-child relationships take into consideration the potential moderating role of parent-child communication dimensions. Indeed, communication is generally regarded as one of the most essential aspects of interpersonal relationships. In family context, the great relevance of the role of communication has been attested by its prominence in theoretical models of family interactions (e.g., Epstein, Bishop, & Levin, 1978; Olson, Russell, et al., 1983; Olson, Sprenkle, et al., 1979) attests to the great importance attributed to the role of communication (Barnes & Olson, 1985a). What is more, as early as when Goffman (1959) developed his ideas on symbolic interactionism he already viewed communication as crucial

to the symbolic interchanges that comprise all social interactions. Parent-child communication has already been found to be associated with identity formation (Grotevant, & Cooper, 1986) and other dimensions of the self-esteem such as self-esteem (Kernis, Brown, & Brody, 2000) in children and adolescents. However, although several theorists have called attention to the importance of feedback communication regarding others' actual appraisals, to our best knowledge, studies focused on testing the LGSH considering the parents as specific significant others (e.g., Nurra & Pansu, 2009), have not yet considered the potential moderating role of parent-child/adolescent communication in the association between parents' actual appraisals and parents' reflected appraisals.

Studying the implications of parent-child communication becomes even more relevant in family contexts marked by increased difficulties, such as child/adolescent maltreatment, given its potential negative influence in children's and adolescents' lives. Although studies focusing parent-child communication in the maltreatment family contexts have been scarce, some communication patterns characteristic of those contexts can be identified. Namely, Burgess and Conger (1978) have noticed that maltreating parents interact less with their children verbally and are more likely to enhance the negative aspects of the relationship, as compared to non-maltreating parents. Also, maltreated children often present communication difficulties that might be due to an overly disorganized linguistic and affective family environment and to a lower frequency and duration of conversations and dialogs, as compared to children from non-maltreating families (Beeghly & Cicchetti, 1994; Drotar & Eckerle, 1989). Thus, regarding the social aspects of communication, parent-child communication quality differs between maltreating and non-maltreating families (Crittenden, 1988). Namely, negligent parents typically report lower perceptions of positive communication with their children, and exhibit less responsive and insensitive discourse (Crittenden, 1981). Parent-child communication in neglecting family environments are usually characterized by confusion in family social roles (Alberto, 2008), rejection (e.g., inattention to children's and adolescents' communication attempts) and disconfirming messages (e.g., impervious responses, interrupting, turning away), which can lead to perceptions of low self-worth in children and adolescents (Alarcão, 2006).

II. Goals and hypotheses

A first goal of this study is to adapt and validate an instrument that has been widely used at the international level to assess both children's/adolescent' and parent's perceptions of the parent-child communication process - the Parent-Adolescent Communication Scale (PACS; Barnes & Olson, 1985). Specifically, we intended to analyse the construct validity based on the scale's internal structure and reliability, and concurrent validity, considering both versions of the child/adolescent form: child-mother and child-father communication. The PACS specifically assesses two dimensions that have been widely highlighted by this field's theoretical models: open communication and communication problems (Portugal & Alberto, 2013). However, no research has yet been conducted on the factor equivalence of the PACS in the Portuguese context. Given that family values and dynamics may differ from across different cultural contexts, the identification of similarities and differences in the PACS factor structure would allow researchers to carry out more refined comparisons and discussions of the results found in different countries, and cross-culturally investigate the relationships between the PACS dimensions and other variables.

Considering the importance of communication in the family context, and particularly of parent-child communication, the absence of a validated and culturally appropriate measure of children's and adolescents' perceptions of communication with their parents constitutes an important gap both in research and practice settings. Without such measures, there is no opportunity for researchers to replicate basic research that examines the role of parent-child communication in research about family processes. Likewise, it is also difficult for clinicians to adequately assess the impact of psychological intervention for Portuguese children and adolescents with difficulties in adequately communicating with their parents. Indeed, given that in Portugal studies focused of parent-child communication, particularly in vulnerable family contexts, has been quite scarce, most likely due to the absence of properly adapted and validated measures of this construct. Therefore, in this study we will address this gap by examining validity and reliability evidence of the PACS Scale on a sample of Portuguese children and adolescents and their parents or caregivers.

A second goal of this study, and one of the main goals of this research project, was to test the LGSH, as a model accounting for the social construction of children's and adolescents' self-representations (SR), in the context of maltreatment. Specifically, we intended to test the mediating role of parents' reflected appraisals (PRA; i.e., children's and

adolescents' appraisals of their parents' appraisals of them) in the association between parents' actual appraisals of their children (PAA; i.e., what parents actually think of their child) and children's and adolescents' self-representation (SR), considering not only within-dimension effects pathways (i.e., pathways between the different perspectives of the same representation dimension of attributes cluster) but also cross-domain effects (i.e., pathways including different representation domains). In addition, we also intended to analyse the moderating role of children's and adolescents' perceptions of their communication with their parents in those mediational pathways, specifically in the association between PAA and PRA, and between PAA and SR.

Based on the theoretical background presented above, it was expected that PRA would mediate associations between PAA content and children's and adolescents' SR. In addition, considering, it was expected that the associations between and among the LGSH elements would be stronger for the SR dimensions including more observable characteristics, for which feedback is more likely to be clearly communicated through parent-child communication. Also, considering that self-concept is conceptualized as a multidimensional system, in which the information about the self is organized in a set of multiple domain-specific, conceptually and statistically independent but interrelated SR (Harter, 1988, 2015; McConnel, 2011), it was also expected to find some cross-domain mediational pathways, especially between and among representation dimensions comprised by more observable characteristics. Finally, given the extant literature suggesting that associations between significant others' actual appraisals and reflected appraisals may depend on the feedback communicated by significant others about their appraisals it was also expected that associations between PAA and PRA would be stronger as a function of children's and adolescent' perceptions of positive communication with their parents.

III. Empirical evidence

Overview

Similar to the previous chapter, following the description of the study methodology as well as of the statistical analyses procedures employed, results will also be presented in two parts. In the first part, we will present the results regarding the adaptation of the PACS to a Portuguese sample will be presented, specifically concerning the language adaptation, and validity and reliability evidence. The second part presents the results of the test of the LGSH

mediation model, followed by a moderated mediation analysis including parent-child communication as a potential moderator of the association between parents' actual appraisals and reflected appraisals.

1. Methodology

1.1. Participants

Study participants were a convenience sample of 204 child/adolescent cases, who were referred to, and assisted by, the Children and Youth Protection Committees (CYPC). For each case, participants included, ideally, the child/adolescent, his or her mother and/or father (or substitutes), and respective case worker.

1.1.1. Children and adolescents.

Children and adolescents (52.5% boys) ranged in age from 8 to 16 years old (M age = 12.62 years, SD = 2.49). Regarding their cohabitation with the parents/parenting figures, the majority (n = 112; 54.9%) lived with both parents/parenting figures, 83 (34.8%) lived with only the mother/mother figure (of these, 15 had frequent contact with the father), and 9 (4.4%) lived with only the father/father figure (of these, 8 had frequent contact with the mother). In 1 case in which all participation informed consents were obtained, the parent(s) and child/adolescent ended up not filling out the measures. In another 6 cases, children/adolescents who were granted parental permission to participate also did not fill out the measures. These drop offs were due to scheduling difficulties.

1.1.2. Parents/Parenting figures.

Regarding the participations of the parents/parenting figures, in 52 cases (24.5%) both parents participated, in 136 cases (67.7%) only the mother (or substitute mother figure) participated, and in 15 cases (7.4%) only the father participated (or substitute mother figure). Thus, in 188 cases (92.2%) the mother/mother figure participated, and in 67 cases (32.8%) the father/father figure participated, making a total of 245 parents/parenting figures. Mothers'/mother figures' age ranged between 25 and 63 (M age = 40.69 years, SD = 7.44). Fathers'/father figures were aged between 21 and 74 (M age = 42.42 years, SD = 8.06).

1.1.3. Case Workers.

In addition, for 188 cases (92.2%), the respective CYPC case worker participated in the study by selecting the children and adolescents and respective parents/parenting figures to be invited to participate in the study, and by filling out the Severity Maltreatment Questionnaire regarding each participating child and/or adolescents. In 101 of these cases (53.7%), the SMQ was filled out by a psychologist, in 50 (26.6%) by a social worker, in 8 (42.6%) by a teacher, in 6 (3.2%) by a social educator, in 5 (2.7%) by an education technician, in 3 (1.6%) by a lawyer/jurist, in another 3 (1.6%) by a nurse, and in 2 (1.1%) by a sociologist. In 10 (5.3%) cases, the case worker did not indicate his/her profession. Most case workers filled out the SMQ for more than one case. Given that participation was anonymous, it is not possible to gauge the exact number of participating case workers. However, of those who identified themselves (i.e., 51 case workers), 19 (37.3%) were psychologists, 18 (35.3%) were social workers, 4 (7.8%) were teachers; 3 (5.9%) were social educators, 2 (3.9%) were sociologists; 2 (3.9%) were lawyers/jurists; 2 (3.9%) were education technicians; and 1 (2.0%) was a nurse.

1.2. Measures

1.2.1. Child and adolescent maltreatment.

Children's and adolescents' maltreatment experiences were measured through the Maltreatment Severity Questionnaire (MSQ; Calheiros, 2006; Calheiros, Silva, Magalhães, & Monteiro, 2017). This instrument was developed to be filled out by professionals of the child/youth protection system. In the present study, the CYPC case workers filled it out with the information available regarding each child/youth file. The MSQ consists of 18 items, each with four descriptors which were rated by the case workers in terms of frequency, in a five point Likert scale (i.e., 1 = unknown/never; 2 = once/rarely; 3 = sometimes; 4 = frequently; 5 = often/currently/current situation). This questionnaire measures two aspects of child abuse and neglect: its frequency (through 72 descriptors) and severity (through the 18 items). Given that, so far, only the data regarding severity have been validated, the models hypothesized in the present study will be tested considering this aspect of child/adolescent maltreatment. In the MSQ validation study (Calheiros et al., 2017), the construct validity analysis of this measure revealed the 18 items are organized in a three-factor structure, comprising the dimensions: 1) Physical Neglect, composed of 8 items describing parental omissions

regarding the assurance and monitoring of the child's physical well-being and health, namely including clothing, hygiene, housing conditions and contextual environmental security; 2) Physical and Psychological Abuse, consisting of 4 items describing abusive physical and psychological actions, namely, coercive/punitive disciplinary methods, physically violent methods or verbal interactions that offend and denigrate the child, with the potential to disrupt psychological attributes, such as self-esteem; and 3) Psychological Neglect, which comprises 6 items describing omissions related to children emotional development, mental health monitoring, school attendance, development needs, as well as inappropriate relationship patterns with attachment figures. In the MSQ validation study, a confirmatory factor analysis revealed an adequate model fit (χ^2 (127) = 477.949, p < .001; $\chi^2/df = 3.763$; CFI = .90; RMSEA = .08; SRMR = .07) and good internal consistency (Cronbach's Alpha) values for the three factors: Physical Neglect ($\alpha = .86$); Psychological Neglect ($\alpha = .79$); Physical and Psychological Abuse ($\alpha = .80$). In the present sample, a confirmatory factor analysis revealed an equally acceptable model fit $(\chi^2 (115) = 271.57; \chi^2/df = 2.36; CFI = .91;$ RSMEA = .08, CI90% [.07, .09]; SRMR = .08) and good internal consistency (Cronbach's Alpha) values for all three factors: Physical Neglect ($\alpha = .80$); Psychological Neglect ($\alpha = .80$) .81); Physical and Psychological Abuse ($\alpha = .79$).

1.2.2. Self-representations.

Self-representations were measured with the SRQA (Martins 2013; Silva, Martin et al., 2016) described previously (see page 69). In the present sample, the attribute 'friendly' was excluded from subsequent analyses due to a highly skewed distribution (i.e., sk = -3.75; sk/SE = 21.49) (cf. Appendix B, Table 1). A confirmatory factor analysis of the SRQA with the present sample with the remaining 17 attributes revealed a good model fit: χ^2 (116) = 209.45, p < .001; $\chi^2/df = 1.81$; CFI = .92; RMSEA = .08, 90% CI [.05, .07]; SRMR = .06.

1.2.3. Parents' reflected appraisals.

Following the standard paradigm used to measure the LGSH components (e.g., Nurra & Pansu, 2009), the instrument used to measure parents' reflected appraisals was adapted from the SRQA (Martins, 2013), consisting of the same 18 attributes, in which children and adolescents were asked to rate what their parents' thought they were in a five-point Likert scale, from 1 (not at all like this) to 5 (exactly like this). Thus, the initial phrase "I am..." was

reworded into "My mother/father thinks I am..." Adolescents rated mothers' reflected appraisals and fathers' reflected appraisals separately.

Mothers' reflected appraisals (MRA). Previous exploratory factor analyses on the MRA measure (Martins, 2013) resulted in a solution of 16 attributes organized in 5 dimensions: instrumental (responsible, organized, untidy, and hardworking), social (helpful, caring, nice, and friendly), emotional (sad, lonely), opposition (grouchy, stubborn), and one dimension combining the intelligence and physical appearance attributes (intelligent, smart, pretty, ugly). The negative attributes are reverse-scored. In the present work, the attributes 'ugly' and 'friendly' presented a highly skewed distribution (ugly: sk = 2.34, sk/SE = 13.30; friendly = -2.13; sk/SE = 12.12), and were thus removed from subsequent analyses (cf. Appendix B, Table 2). A confirmatory factor analysis of this measure's structure with the present sample revealed a good model fit: $\chi^2(66) = 116.48$, p < .001; $\chi^2/df = 1.81$; CFI = .92; RMSEA = .06, 90% CI [.04, .08]; SRMR = .06. Cronbach's Alpha values ranged from .72 to .84.

Fathers' reflected appraisals (FRA). As for the FRA measure, previous exploratory factor analyses (Martins, 2013) also yielded a solution of 16 attributes, organized in the same five dimensions: instrumental (responsible, organized, untidy, and hardworking), social (helpful, caring, nice, and friendly), emotional (sad, lonely), opposition (grouchy, stubborn), and one dimension combining the intelligence and physical appearance attributes (intelligent, smart, pretty, ugly) (cf. Appendix B, Table 3). The negative attributes are reverse-scored. A confirmatory factor analysis of this measure's structure with the present sample also revealed a very good model fit: $\chi^2(93) = 171.77$, p < .001; $\chi^2/df = 1.85$; CFI = .92; RMSEA = .07, 90% CI [.06, .09]; SRMR = .07. Cronbach's Alpha values ranged from .64 to .82.

1.2.4. Parents' actual appraisals.

Parents' actual appraisals were also measured with an adaptation of the 18 attributes of the SRQA, following the standard paradigm used to measure the LGSH components (e.g., Nurra & Pansu, 2009). Both parents were asked parents to rate to what extent those attributes described their child, in a 5-point Likert scale, from 1 (not at all like this) to 5 (exactly like this). Hence, the initial phrase "I am..." was reworded into "My son/daughter is..." The analysis of the construct validity of this measure will be presented below.

Mothers' actual appraisals (MAA). Previous exploratory factor analyses on the MAA measure (Martins, 2013) resulted in a solution of 14 attributes organized in 5 dimensions: instrumental (responsible, organized, untidy, and hardworking), social (helpful, caring, nice, and friendly), emotional (sad, lonely), intelligence (intelligent, smart), and opposition (grouchy, stubborn). The negative attributes are reverse-scored. In the present work, the attribute 'friendly' presented a highly skewed distribution (i.e., sk = -2.99; sk/SE = 16.68) and thus was removed from the subsequent analyses (cf. Appendix B, Table 4). A confirmatory factor analysis of this measure's structure with the present sample revealed a very good model fit: χ^2 (51) = 88.60, p < .05; $\chi^2/df = 1.74$; CFI = .94; RMSEA = .06, 90% CI [.04, .09]; SRMR = .07. Cronbach's Alpha values ranged from .65 to .75.

Fathers' actual appraisals (FAA). As for the FAA measure, previous exploratory factor analyses (Martins, 2013) yielded a four-factor structure composed of 13 attributes, organized in the following dimensions: instrumental (responsible, organized, untidy, and hardworking), social (helpful, caring, nice, and friendly), emotional (sad, lonely, angry), and opposition (grouchy, stubborn) (cf. Appendix B, Table 5). The negative attributes are reverse-scored. A confirmatory factor analysis of this measure's structure with the present sample also revealed a very good model fit: χ^2 (58) = 79.83, p < .05; $\chi^2/df = 1.38$; CFI = .94; RMSEA = .08, 90% CI [.03, .11]; SRMR = .09. Cronbach's Alpha values ranged from .65 to .82.

1.2.5. Parent-child communication.

The quality of parent-child communication was measured with the Parent-Adolescent Communication Scale (PACS) adapted to the Portuguese context in the present study. The PACS assesses the parent-child communication content and process. The original version consists of 20 items organized in two subscales, each composed of 10 items: Open Communication (OC) and Communication Problems (CP). The OC subscale taps the positive aspects of parent-child communication, specifically the degree of openness in parent-child interactions as a source of free expression and of understanding and support (e.g., "My mom/dad is always a good listener"; "I find it easy to discuss problems with my father/ mother"). The CP subscale captures the negative aspects of parent-child communication, namely the extension of parent-child communication problems, including withholding information from parents (e.g., "There are topics I avoid discussing with my father/mother"),

wariness in disclosure to parents (e.g., "I am careful about what I say to my mother/father"), and intentional non-communicativeness (e.g., "When we are having a problem, I often give my father/ mother the silent treatment"). This instrument has two forms, one for children/adolescents and one for parents/parenting figures. Each form has two versions: one for mother-child communication and another for father-child communication. In this study only the child/adolescent version was used. Children and adolescent rated the quality of their communication with their mothers and fathers separately. Children/adolescents indicated the degree to which thy agreed or disagreed with the statement in each item in a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The administration of the child-mother and child-father versions results in two subscales of both Problem Communication and Open Communication (one for each version). Regarding the scoring procedures, the items can be averaged so that higher scores indicate more openness and parent-child communication problems, respectively, in as evaluated children/adolescents. Also, the items of the Problem Communication scale can be reversed in value, allowing an additive total scale score, where a higher total score indicates better parent-child communication, perceived by the children/adolescents. Prior research has demonstrated good psychometric characteristics of this instrument both in terms of internal structure and reliability (e.g., Barnes & Olson, 1985a; Barnes & Olson, 1985b; Jang & Kim, 2012; Kimiecik & Horn, 2012; Lanz, Iafrate, Rosnati, & Scabini, 1999; Rosnati, Iafrate, & Scabini, 2007; Segrin, Woszidlo, Givertz, Bauer, & Murphy, 2012). The adaptation procedure of this measure in the context of the present study will be presented in detail below.

1.3. Procedure

This study was approved by the ethics commission of ISCTE-IUL - University Institute of Lisbon. A request for permission to conduct the study, with a detailed explanation of its goals and data collection procedure, was made to all the Children and Youths Protection Committees (CYPC) of three Portuguese districts – two from the mainland (Lisbon and Setúbal) and one from one Portuguese archipelago (Madeira), via e-mail. In addition, permission was also requested to the Madeira Domestic Violence Victims Support Team (MDVVST). Eighteen CYPC – 7 from Lisbon district, 4 from Setúbal district, and 7 from Madeira district – and the MDVVST agreed to collaborate in the study. In each of these

services (CYPC and MDVVST), the case workers were asked to select, among the cases they were assisting, the ones regarding children and/or adolescents aged between 8 and 16 years old, in which the evaluation carried out allowed the identification of at least one maltreatment action or omission listed in the MSQ. Then, at the end of a case work meeting, the case workers informed the families that their service was collaborating in a research study and asked the families if they would accept to be provided with more detailed information by the researcher regarding the aims and procedure of the study. For those who accepted, detailed information regarding the goals, procedure, and ethical considerations of the study was provided, followed by an invitation to participate in the study.

After declaring to accept, parents signed the information and consent form, declaring to accept to participate in the study and providing permission for their child's (or children, in the cases of families with more than one participating child/adolescent) participation. Then, adolescents aged more than 12 years old also signed an information and consent form, and children under 12 years old provided informed assent to participate in the study. All participants were told that their participation was voluntary and that they could choose not to participate or to quit participating at any time, if they desired. Participant anonymity was guaranteed, and they were assured that information would be used only for research purposes. The questionnaires were individually administered to each participant (parents and children and adolescents). Case workers filled out the SMQ for each child/adolescent whose participation was authorized by the parent(s)/parenting figure(s).

1.4. Data analyses

1.4.1. Instrument validation analysis

The data analysis was conducted by IBM-SPSS Statistics 23.0 and AMOS 23.0 (Arbuckle 2011). Given that the PACS Scale has already been submitted to a CFA in the original study (Barnes & Olson, 1985), we tested the original factor structure in our sample using maximum likelihood estimation, with the full sample of children and adolescents and parents (mothers and fathers). The reliability was checked through Cronbach's Alpha. The concurrent validity was tested correlating the PACS dimensions with the internalization and externalization scales of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001; Achenbach et al., 2014).

1.4.2. Model tests

In the present work, although we collected data with both parents, fathers' participation (i.e., N=76) was insufficient to test the LGSH in the father-child/adolescent relationship. Therefore, although we present the psychometric analysis performed with the measures filled out by the fathers - confirmatory factor analysis of fathers' actual appraisals measure (see pages 135 and 136) and the adaptation of the fathers' version of the PACS - in the model tests section, only the test of the LGSH mediation and moderated mediation models in the relationship with the mother will be presented.

The looking-glass self hypothesis (LGSH) in the relationship with the mother

Initial analyses included missing value analysis, descriptive statistics, bivariate correlations among the model variables (i.e., predictors, criterions, mediators, moderators, and covariates), and analysis of sex differences. All variables included in the model were composites computed by averaging their respective items (except for children's and adolescents age and sex). Prior to conducting descriptive, correlation and model test analyses, missing data were analysed, using IBM SPSS v20 (IBM Corp., 2011). The amount of isolated missing data within the study measures ranged from 0 to 0.5% for self-representation (SR) measure, from 0 to 1.1% for the mothers' actual appraisals measure (MAA), from 0 to 0.5% for the mothers' reflected appraisals measure (MRA), from 0 to 1.1% for the maltreatment measure, and from 0 to 0.5% for the mother-child communication measure, which is considered small (Widaman, 2006). Missing estimations were run using an estimating method [SR: Little's MCAR test $\chi^2 = 49.59$, DF = 49, p < .45 (n.s.); MAA: Little's MCAR test $\chi^2 = 45.51$, DF = 33, p=.07 (n.s.); MRA: Little's MCAR test $\chi^2 = 28.31$, DF = 33, p = .70(n.s.); Maltreatment: Little's MCAR test $\chi^2 = 52.20$, DF = 30, p<.05; normed chi-square = 1.74 (so <2); Mother-child communication: Little's MCAR test $\chi^2 = 35.96$, DF = 38, p = .56(n.s.)] that led to the conclusion that missing data were completely at random (MCAR) for the SR, MAA, MRA, and mother-child communication measures, and most likely at random (MAR) for the maltreatment measure (Ullman, 2001). Thus, for each measure, the expectation maximization algorithm was used to impute missing data using all information available from observations on the other variables. All model variables were composites derived by parcelling the items composing each dimension. A global positive mother-child communication score was obtained by reverse scoring the problem communication items.

a) LGSH mediation analyses

Preceding the test of the LGSH mediation model, another missing value analysis conducted with all model variables revealed that missing data were completely at random (MCAR; Little's MCAR test chi-square = 117.692, DF = 72, p<.05; normed chi-square = 1.63 (so <2). Therefore, missing data were dealt with using Full Information Maximum Likelihood (FIML), using *MPlus* 7.1. (Muthén & Muthén, 1998–2012). Subsequently, the proposed mediation model was tested using path analysis, performed with *MPlus* 7.1. (Muthén & Muthén, 1998–2012), with bootstrap estimation. A multimediator path analysis was conducted to test indirect effects of mothers' actual appraisals (instrumental, social, emotional, intelligence, and opposition) on children and adolescents' self-representations, through mothers' reflected appraisals (instrumental, social, emotional, intelligence/physical appearance, and opposition) (i.e., children's and adolescents' appraisals of their mother's appraisals of them).

Given that previous studies have shown significant age and sex differences in adolescents' self-representations (see Harter, 2015), participants' age and sex were included in this model as covariates. Since we intended to test the LGSH in the context of child/adolescent maltreatment, and given the documented significant negative relations between child/adolescent abuse and neglect and children's and adolescents' self-representations, those experiences (i.e., physical neglect, psychological neglect, and abuse) were also controlled for in the model (e.g., Toth et al., 1997). In addition, based on theoretical assumptions and on the results of the correlation analysis, the disturbances of the variables within the predictors, mediators, and criterions that were shown to be significantly and expressively correlated (i.e., p < .001) were allowed to correlate in the model.

We used a bootstrap approach to test the mediation hypothesis (Shrout & Bolger, 2002), through performing a nonparametric resampling method (bias-corrected bootstrap) (Preacher & Hayes, 2004) with 5000 resamples drawn with replacement from the original sample to derive the 95% confidence interval for the indirect effect. To evaluate model fit, the following fit indexes and criteria were used: the relative χ^2 index (χ^2 /df) values ≤ 2 (Arbuckle, 2011), the comparative fit index (CFI) > .95, the root mean square error of approximation (RMSEA) < .05 and the standardized root mean residual (SRMR) < .08 suggest a good fit (Hu & Bentler, 1999; Schreiber et al., 2006).

b) Moderated mediation analyses

Finally, in order to examine the moderating role of children's and adolescents' perceptions of their communication with their mother in the mediational pathways between and among mothers' actual appraisals through mothers' reflected appraisals, a set of moderated multiple mediator models were tested. Our goal was to statistically test the conditional indirect effects of mothers' actual appraisals on children and adolescents' selfrepresentations via mothers' reflected appraisals, at different levels of children's and adolescents' perceived communication with their mother. Following recommendations by Hayes (2015) and Preacher, Rucker, and Hayes (2007) these analyses were conducted using a non-parametric method (bootstrap), through PROCESS macro for SPSS version 23 (IBM Corporation, New York, USA) developed by Hayes (2013). A moderated-mediation analysis estimating all parameters simultaneously was conducted, providing (a) estimates of the indirect effects and associated confidence intervals (CIs) conditional on specified levels of the moderator (i.e., -1SD, Mean, +1SD) and (b) an index of moderated mediation, which estimates the quantification of the relationship between the proposed moderator and the size of the indirect effects (i.e. representing the slope of the line reflecting the association between the moderator and the indirect effect) (Hayes 2015).

To assess the moderating role of children's and adolescents' perceived communication with their mother in the first stage of the mediation and direct effect model (between predictors and mediators and between predictors and outcome variables), we specified Model 8 in PROCESS. As recommended by Hayes (2013), we ran a series of regression analyses for each outcome variable (i.e., SR dimensions), and reported the unstandardized values. Given that the bootstrap method is considered as an accurate method to obtain confidence intervals in comparison to other standard methods, and is assumptionfree concerning the sample distribution, this procedure was used to test the significance of the conditional direct and indirect effects. Each analysis utilized 5000 bootstrap re-samples, and significance was determined based on 95% bias-corrected confidence intervals (i.e., when the CI did not contain zero, the parameter was interpreted as significant) (Byrne 2010; Hayes & Preacher 2010; Kline 2005). In the analysis, the mean center for products was used. This procedure has no effect on the value of the index of moderated mediation (Hayes 2015). The size and the direction of the index are used to guide interpretation of the moderated mediation (Hayes, in press).

Based on the results from the multiple mediation LGSH model, only the statistically significant indirect effects were tested for moderated mediation, with mother-child communication (as perceived by children's and adolescents) as a first stage moderator of the association between predictor(s) and mediator(s), and between predictor and outcome variable(s), by specifying model 8 on PROCESS macro. So, for each SR dimension, a moderated mediation model was tested. For the instrumental, social, emotional, intelligence and opposition SR dimensions, in each model, the MRA and MAA dimensions, which the previous model showed to have a significant effect on that SR dimension, were included. For the physical appearance dimensions, the moderated mediation model included all MRA as mediators, given that the LGSH mediation model did not reveal any specific indirect effect, but only a total indirect effect. In addition, following the analytical options of the multimediator path analysis model, age, sex, and maltreatment experiences were also controlled for in the moderated mediation analyses. Mean centering was used for product terms. Moderator's values of low and high are the mean plus/minus one standard deviation.

2. Results

2.1. Adaptation and validation of the Parent-Adolescent Communication Scale (PACS) to a sample of Portuguese Children and Adolescents⁵

Given the absence of a previously validated version of the PACS for the Portuguese people, it was necessary to analyse the construct validity and the reliability of this scale in the context of the present study. The following pools of participants were included in the analysis of each version: communication with the mother - N = 195 (52.8% boys; Mage = 12.68, SD = 2.47); communication with the father - N = 165 (52.7% boys; Mage = 12.67, SD = 2.44).

2.1.1. Adaptation

The adaptation of the PACS (Barnes & Olson, 1985) began with a careful translation of the 20 items of both children/adolescents and parents' forms to the Portuguese language by the researcher and two other independent researchers with scientific knowledge and professional experience in self-report measures adaptation and validation. Translation was

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⁵ The results presented in this section resulted in the following publication: Lourenço, M., Silva, C. S., & Calheiros, M. M. (2017). *Propriedades psicométricas da adaptação da Parent-Adolescent Communication Scale (PACS) numa amostra de crianças e adolescentes portugueses*. Manuscript submitted for publication.

literal for most items. In one item which included a colloquialism that does not have a literal Portuguese translation ("When we are having a problem, I often give my mother/father the silent treatment), an expression with a similar meaning was found. The items in which discrepancies between translations arose were discussed by the researchers until consensus was reached. No cultural discrepancies between the two versions were found, given that the experiences captured by all the items are also experienced in the Portuguese culture, and hence there was no need to replace any item for a similar one experienced in the Portuguese culture. Following this translation process, a back-translation was performed by a bilingual researcher to assure that the original meanings remained following the translation. Then, this version and the original one were compared by an English-speaking researcher and were considered identical, semantically, experientially, and conceptually.

2.1.2. Validity analyses

2.1.2.1. Descriptive Statistics

Preceding the analysis of the construct validity, a descriptive analysis of the 20 items of the original version (Barnes & Olson, 1985) was performed for both mothers' and fathers' reports in order to obtain information about the symmetry of the items' distribution. The analysis of the ratio Skewness/Standard Error (*Sk/SE*) allowed the identification of some items with a skewed distribution in both the mother's and father's version (cf. Appendix B, Table 6 and Table 7, respectively). Nevertheless, in both versions, the absolute values of skewness for all the 20 items were lower than 3, which can be considered non-problematic in terms of distribution (Kline, 2005). Therefore, in both versions, no items were dropped before the following analyses.

2.1.2.2. Confirmatory Factor Analysis

Mothers' version. A first CFA (Table 5, Model A) revealed that the item '11. I am careful about what I say to my child' showed a very low factor loading (i.e., -.26, so < .30), and was therefore dropped from the analysis. A subsequent CFA (Table 5, Model B) showed that the item 10. When we are having a problem, I often give my mother the silent treatment' also had a low and non-significant factor loading (i.e., .21; p = .06), and thus was also dropped from the analysis. The final CFA solution showed a good fit to the data (Table 5, Model C). Internal consistency (Cronbach's Alpha) within the current sample was good -

Open communication (mother): α = .89; Communication problems (mother): α = .79. In order to avoid problems resulting from deviations from normality, we also used a nonparametric method (bootstrap) with 5000 subsamples and found that the estimates were stable. Therefore, the final model is composed of 18 items – 10 in the Open Communication factor and 8 in the Problem Communication factor.

Table 5. Fit indices for alternative PACS (mother's version) models

Model	χ^2	df	χ^2/df	$\Delta \chi^2$	Δdf	CFI	RMSEA	SRMR	AIC	BIC
A	315.67	169	1.87			.90	.06	.08	397.67	536.25
В	288.59	151	1.91	27.08^{*}	18	.90	.07	.07	366.59	494.24
C	243.66	134	1.82	44.58***	17	.92	.07	.07	317.66	438.76

Note: χ^2/df = ratio of chi-square to degree of freedom; $\Delta\chi^2$ (Δdf) - chi-square difference test; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; AIC = Akaike information criterion; BIC = Bayes information criterion. *p < .10 ***p < .001

Figure 4 displays the standardized solution parameter estimates of the items, and the correlations between factors. The open and problematic communication scales were significantly and strongly negatively correlated (r = -.70, p < .001). Additionally, as shown in Fig. 4, all factor loadings were higher than .40, and most factor loadings were considered strong (i.e., > .60), suggesting a good convergent validity of the factors (Brown, 2006).

Fathers' version. For the fathers' version, a first CFA with all 20 items (Table 6, Model A) also revealed that the item '11. I am careful about what I say to my child' showed an extremely low factor loading (i.e., -.22, p = .04) and thus was removed from the analysis. Next, based on modification indices and theoretical plausibility, two pairs of error terms (i.e., 1 and 2; 18 and 20) were allowed to correlate. The subsequent CFA without this item showed a good fit to the data (Table 6, Model A). Internal consistency (Cronbach's Alpha) within the current sample was good or excellent - Open communication (father): $\alpha = .93$; Communication problems (father): $\alpha = .75$. Again, in order to avoid problems resulting from deviations from normality, we also used a nonparametric method (bootstrap) with 5000 subsamples and found that the estimates were stable. The final model is thus composed of 19 items – 10 in the Open Communication factor and 9 in the Problem Communication factor.

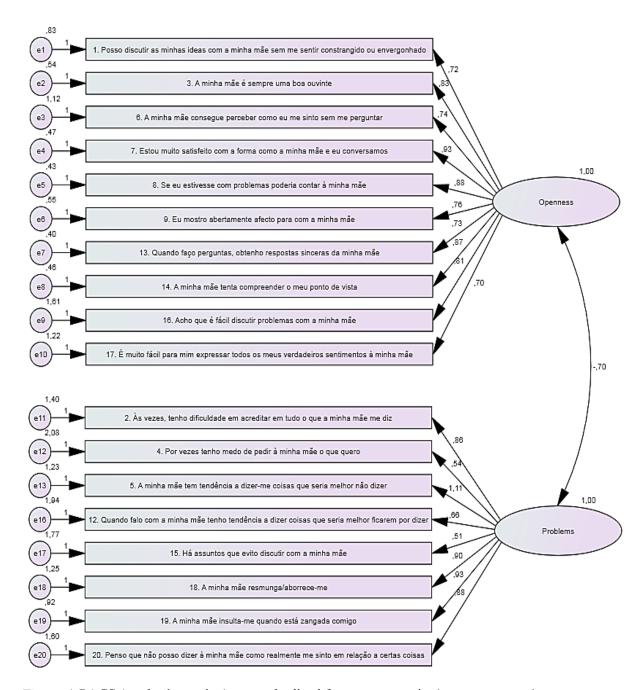


Figure 4. PACS (mother's version) unstandardized factor structure in the present sample

Table 6. Fit indices for alternative PACS (father's version) models

Model	χ^2	df	χ^2/df	$\Delta \chi^2$	Δdf	CFI	RMSEA	SRMR	AIC	BIC
A	285.47	169	1.69			.93	.06	.07	367.47	499.06
В	213.97	149	1.45	71.5***	20	.95	.05	.07	295.97	423.32

Note: χ^2/df = ratio of chi-square to degree of freedom; $\Delta\chi^2$ (Δ df) - chi-square difference test; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; AIC = Akaike information criterion; BIC = Bayes information criterion. ***p < .001

Figure 5 displays the standardized solution parameter estimates of the items, and the correlations between factors. For all factors, all items' factor loadings were significant. The open and problematic communication scales were significantly and strongly negatively correlated (r = -.67, p < .001). Additionally, as shown in Fig. 5, all factor loadings were higher than .40, and most factor loadings were considered strong (i.e., > .60), suggesting a good convergent validity (Brown 2006). In order to avoid problems resulting from deviations from normality, we also used a nonparametric method (bootstrap) with 5000 subsamples and found that the estimates were stable.

2.1.2.3. Concurrent Validity

Positive significant correlations were found only between problem communication with the mother and internalizing and externalizing behaviour. No significant correlations were found between the communication with the father dimensions and the CBCL scales (Table 7).

Table 7.

Correlations between the PACS dimensions and Internalizing and Externalizing Scales of the CBCL

PACS dimensions	CBCL						
r ACS difficultions	Internalizing Problems	Externalizing Problems					
Open communication (mother)	05	12					
Problem communication (mother)	.14+	.18*					
Open communication (father)	09	.02					
Problem communication (father)	05	.00					

Note: $^+ p < .10 * p < .05$

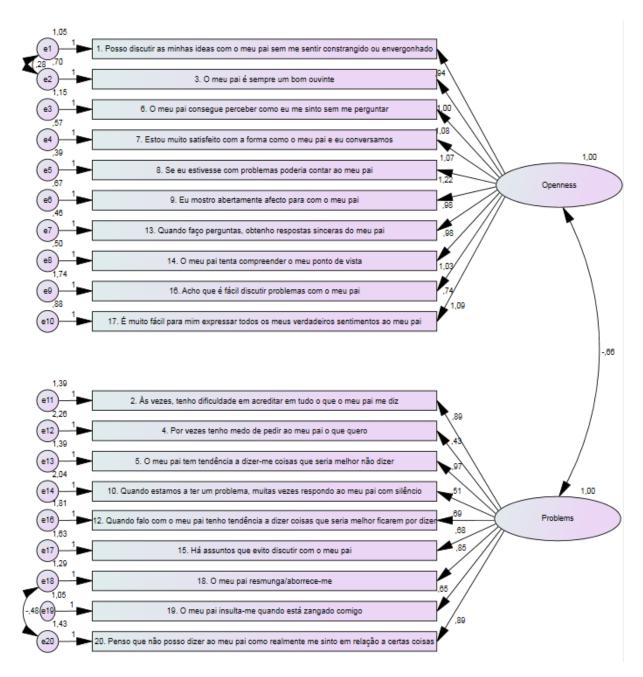


Figure 5. PACS (father's version) unstandardized factor structure in the present sample

2.2. The looking-glass self hypothesis (LGSH) and the moderating role of mother-child communication

Once presented the psychometric evidence on the internal structure and validity of the PACS, adapted in the present thesis, we will proceed to present the test of the LGSH. First, a multimediator path analysis model, including all dimensions of mothers' actual appraisals (MAA) as predictors, mothers' reflected appraisals (MRA) as mediators, and children's and adolescents' self-representations as criterion variables will be tested. Then, a series of moderated mediation models will be tested in order to analyse if the potential indirect effects of MAA on self-representations through MRA are conditional on levels of children's and adolescents' perception of communication with their mother.

2.2.1. LGSH mediation model in the mother-child relationship

2.2.1.1. Descriptive statistics and correlations

Table 8 presents the means, standard deviations, and correlations among the all variables included in the model. Generally, the correlations are in line with the theoretically expected pattern of relationships. Significant positive correlations were observed among most self-representation domains, as was also the case for the MAA and reflected appraisals domains. In addition, significant positive correlations were found between the selfrepresentations (SR) and reflected appraisals domains; these correlations were stronger between the two perspectives of the same domain. All dimensions of MAA were significantly and positively correlated with reflected appraisals and SR in the same domain, and some significant cross-domain correlations were also found. The correlations between actual appraisals and reflected appraisals in the same domain were stronger than between actual appraisals and SR. In addition, these correlations were weaker than between reflected appraisals and SR. As also expected children's and adolescents' age was significantly and negatively correlated with all SR dimensions and reflected appraisals except for the emotional domain. These correlations were stronger for the opposition domain. A significant negative correlation between age and MAA was found only for the social domain. Finally, children's and adolescents' perceptions of their communication with their mother were associated with more positive SR, reflected appraisals and actual appraisals in all the domains, except for physical appearance and intelligence SR.

2.2.1.2. Mean differences on children's and adolescents' sex

Predictor, criterion, and mediator variables were analysed considering children's and adolescents' sex. Results revealed significant differences between girls and boys only for SR and MRA in the opposition domain: boys reported higher levels of opposition SR and MRA than girls (cf. Appendix B, Table 8).

2.2.1.3. Mediation model

As can be seen in Figure 3, a multi mediator path analysis model was estimated examining MRA in the instrumental, social, emotional, intelligence and opposition dimensions as intervening mechanisms linking MAA to children's and adolescents' domain specific SR. Prior to testing the model, another missing value analysis conducted with all model variables revealed that missing data were completely at random (MCAR; Little's MCAR test chi-square = 117.692, DF = 72, p < .05; normed chi-square = 1.63 (so <2). Therefore, missing data were dealt with using Full Information Maximum Likelihood (FIML), using *Mplus*. The model presented a very good fit to the data χ^2 (35) = 51.01, p = .04; $\chi^2/df = 1.46$; CFI = .99; RMSEA = .05, 90% CI [.01 to .07]; SRMR = .04). Figure 6 depicts the unstandardized bootstrap parameter estimates of the path analysis model.

Table 8.

Descriptive statistics and correlations among the study variables (N=203)

Variable	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1. Age	12.61	2.49																				
2. Phy. Neg.	1.62	.75	.13																			
3. Abuse	1.82	.98	.02	.24**																		
4. Psyc. Neg.	2.47	1.09	.31***	.70***	.37***																	
5. Inst. MAA	3.40	1.07	08	.05	05	09																
6. Soc. MAA	4.51	.69	17*	.16*	07	.02	.36***															
7. Emo. MAA	4.06	1.01	13	.09	11	05	.13	.29***														
8. Int. MAA	4.49	.73	02	06	04	11	.28***	.28***	.19**													
9. Opp. MAA	2.52	1.19	08	18*	10	16*	.46***	.23**	.29***	.13												
10. Inst. MRA	3.63	1.00	23**	.01	15*	12	.41***	.34***	.21**	.22**	.17*											
11. Soc. MRA	4.26	.87	20**	.02	18*	07	.19**	.33***	.14	.14	.15*	.50***										
12. Emo. MRA	4.10	1.05	04	.06	03	04	.13	.13	.05	.05	.17*	.30***	.38***									
13. Int. MRA	4.26	.78	16*	12	08	24**	.21**	.27***	.33***	.33***	.16*	.36***	.54***	.22**								
14. Opp. MRA	2.85	1.36	44***	.04	.04	10	.33***	.31***	.09	.09	.37***	.49***	.37***	.34***	.20**							
15. Inst. SR	3.77	.80	18*	07	11	12	.36***	.19**	.22**	.22**	.22**	.75***	.32***	.24**	.21***	.36***						
16. Soc. SR	4.35	.65	15*	12	23**	19*	.07	.19**	.06	.06	.06	.40***	.60***	.24**	.34***	.23**	.42***					
17. Emo. SR	3.96	.89	10	.02	10	13	.18*	.10	.18*	.18*	.20**	.28***	.18*	.53***	.18*	.34***	.26***	.15*				
18. Ph. Ap. SR	4.08	1.05	34***	12	01	18*	05	.12	.06	.06	14	.29***	.30***	.17*	.27***	.25***	.34***	.28***	.16*			
19. Intel. SR	3.74	.85	24**	17*	04	20**	.04	.02	.28***	.28***	.09	.24**	.24**	04	.53***	.13	.35***	.32***	.12	.27***		
20. Opp. SR	2.86	1.19	48***	.04	.04	13	.28***	.32***	.11	.11	.33***	.42***	.21**	.21**	.19**	.80***	.40***	.19**	.35***	.29***	.26***	
21. Comm.	3.87	7.62	07	.37	14	10	.28***	.28***	.28***	.18*	.16*	.44***	.56***	.46***	.38***	.45***	.25***	.26***	.40***	.09	.10	.28***

Note. MAA = Mothers' actual appraisals, MRA = Mothers' reflected appraisals; SR = Self-representations; Comm = Communication. *p < .05 * p < .01 * p < .001

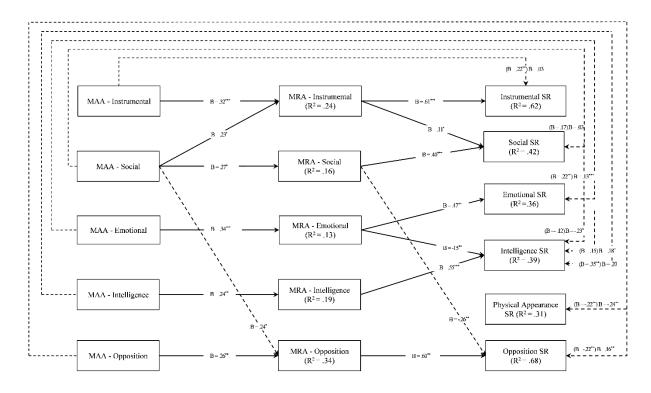


Figure 6 – Model examining MRA as mediators of the association between MAA and children and adolescents' SR. Arrows in solid refer to significant indirect effects. Unstandardized coefficients in brackets refer to the total effect of MAA on the SR dimension. For ease of interpretation, only significant effects are represented, except for the direct and/or total effects presented adjacent to the respective total/direct effects. MAA = Mothers' actual appraisals; MRA = Mothers' reflected appraisals; SR = Self-representations. *p < 0.05 **p < 0.01 ***p < 0.001

The results of the correlation and mean differences analysis reinforced the theoretically based option to include children's and adolescents' age, sex and maltreatment experiences as covariates in this model. So, controlling for the potential effect of children's and adolescents' age and sex, of maltreatment experiences (physical neglect, psychological neglect and abuse), and of all possible cross-domain relationships among the MAA, MRA and SR dimensions, the analysis of the LGSH mediation model revealed significant indirect effects of MAA on SR through MRA, in all representations domain common to the three perspectives – instrumental, social, emotional, intelligence, and opposition. Specifically, the following within-domain significant specific indirect effects were found: 1) Instrumental (B = .19, p < .001, 95% CI [.102, .298]); 2) Social (B = .11, P = .047, 95% CI [.019, .238]); 3) Emotional (B = .13, P = .002, 95% CI [.058, .225]); 4) Intelligence (B = .13, P = .020, 95% CI [.037, .269]); 5) Opposition (B = .16, P = .009, 95% CI [.042, .281]).

For each of these domains, higher MAA were associated with higher MRA, which, in turn, were associated with higher SR. That is to say, children and adolescents appraised by their mother in a more positive way in those self-representation domains are more likely to think that their mothers perceive them that way, and subsequently tend to present more positive SR in those domains.

In addition to these significant within-domain indirect effects, results also revealed the following significant specific cross-domain indirect effects, that is, pathways from MAA to MRA to SR including different representation domains:

- Instrumental MAA on social SR through instrumental MRA (B = .04, p = .046, 95% CI [.006, .075]) higher instrumental MAA were associated with higher instrumental MRA, which, in turn, were associated with higher social SR. In other words, although the confidence interval of this effect only barely excludes zero, this result suggests that children and adolescents appraised by their mother as, for example, more responsible, organized and hardworking, are more likely to think that their mothers perceive them that way, and subsequently tend to think of themselves as nicer, friendlier and more helpful.
- Social MAA on instrumental SR through instrumental MRA (B = .14, p = .052, 95% CI [.009, .295]) higher social MAA were associated with higher instrumental MRA, which, subsequently, were associated with higher instrumental SR. That is, although the confidence interval of this effect only barely excludes zero, this result suggests that children and adolescents appraised by their mother as nicer, friendlier and more helpful, are more likely to think that their mothers perceive them as responsible, organized and hardworking, and subsequently are also more likely to perceive themselves that way.
- 3) Emotional MAA on intelligence SR through emotional MRA (B = -.05, p = .035, 95% CI [-.108, -.013]) higher emotional MAA were associated with higher emotional, which, subsequently, were associated with lower intelligence SR. That is, children and adolescents appraised by their mother as less sad, angry and lonely, are more likely to think that their mothers perceive them that way, and subsequently tend to present perceive themselves as less intelligent and smart.
- Social MAA on social SR through instrumental MRA (B = .03, p = .206, 95% CI [.001, .086]) higher social MAA were associated with higher instrumental MRA, which, in turn, were associated with higher social SR. In other words, even though the confidence interval of this effect only barely excludes zero, children and adolescents appraised by their

mother as nicer, friendlier and more helpful, are more likely to think that their mothers perceive them as more responsible, organized and hardworking, and subsequently, to perceive themselves as nicer, friendlier and more helpful.

- 5) Social MAA on intelligence SR through intelligence MRA (B = .07, p = .081, 95% CI [.003, .218]) higher social MAA were associated with higher intelligence MRA, which, in turn, were associated with higher intelligence SR. That is, although, the confidence interval of this effect only barely excludes zero, this result suggests that children and adolescents appraised by their mother as nicer, friendlier and more helpful, are more likely to think that their mothers perceive them as smarter and more intelligent, and subsequently, are more likely to perceive themselves as such.
- Social MAA on opposition SR through social MRA (B = -.07, p = .101, 95% CI [-.184, -.009]) higher social MAA were associated with higher social MRA, which, in turn, were associated with lower opposition SR. Even though the confidence interval of this effect only barely excludes zero, children and adolescents appraised by their mother as nicer, friendlier and more helpful, are more likely to think that their mothers perceive them as such, but, subsequently, tend to perceive themselves as more stubborn and as grouchier.
- 7) Social MAA on opposition SR through opposition MRA (B = .15, p = .306, 95% CI [.006, .312]) higher social MAA were associated with higher instrumental MRA, which, in turn, were associated with higher social SR. In other words, although the confidence interval of this effect also only barely excludes zero, this result suggests that children and adolescents appraised by their mother as nicer, friendlier and more helpful, are more likely to think that their mothers perceive them as less suborn and grouchy, and subsequently, to perceive themselves as such.

Finally, results also revealed a significant total indirect effect (without significant specific effects) of Social MAA on physical appearance SR (β = .07, p = .042, 95% CI [.021, .248]). Children and adolescents whose appraised by their mother as nicer, friendlier and more helpful are more likely to report more positive physical appearance SR. This significant global indirect effect, in the absence of any significant specific indirect effect, suggests that all MRA dimensions taken together account for this relation.

2.2.2. The moderating role of child-mother communication

As can be seen on Table 9, results of the moderated mediation analyses showed that a significant index of moderated mediation (IMM) was found only for the indirect effect of social MAA on instrumental SR through instrumental MRA, indicating that this effect was significantly moderated by children's and adolescent' perceived communication with their mother.

Table 9. *Moderated mediation models*

Model (SR dimension)	Indirect effect	med	moderated iation inication
		Coeff. (SE)	95% CI
Instrumental SR	Instrumental MAA→Instrum. MRA→Instrum. SR	.067 (.051)	(023, .181)
instrumental SK	Social MAA \rightarrow Instrumental MRA \rightarrow Instrumental SR	.223 (.090)	(.069, .428)
Social SR	Social MAA → Social MRA → Social SR	002 (.051)	(103, .098)
Social SK	Instrum. MAA → Instrum. MR A → Social SR	.013 (.012)	(002, .048)
Emotional SR	Emotional MAA \rightarrow Emotional MRA \rightarrow Emotional SR	064 (.037)	(146, .002)
Intallinanaa CD	Intelligence MAA \rightarrow Intell. MRA \rightarrow Intell.SR	.076 (.055)	(030, .193)
Intelligence SR	Emotional MAA→Emotional MRA→Intelligence SR	.025 (.018)	(001, .076)
	Opposition MAA→Opposition MRA→Opposition SR	.043 (.061)	(089, .157)
Opposition SR	Social MAA→ Social MRA→ Opposition SR	.000 (.022)	(052, .045)
	Social MAA→ Opposition MRA→ Opposition SR	.097 (078)	(051, .260)
	Social MAA→Instrum. MRA→Ph. Appearance SR	.035 (.038)	(013, .154)
Physical	Social MAA→ Social MRA→ Ph. Appearance SR	001 (.022)	(054, .040)
	Social MAA→ Emotional MRA→Ph. Appearance SR	009 (.018)	(069, .010)
Appearance SR	Social MAA→ Intell. MRA→ Ph. Appearance SR	006 (.019)	(070, .016)
	Social MAA→ Opposition MRA→ Ph. Appear. SR	.006 (.013)	(007, .053)

As shown in Table 10, the indirect effect of social MAA on instrumental SR, through instrumental MRA was positive and significant only among children and adolescents who reported mean and higher levels of positive communication with their mother. The index of moderated mediation has a positive value and the bootstrap confidence interval for this index does not include zero. Thus, we can be 95% confident that this indirect effect is an increasing function of children's and adolescents' perceptions of positive communication with their

mother.

Table 10.

Unstandardized indirect effects of social MAA on instrumental SR through instrumental SR, conditional on the level of children's/adolescents' perceived communication with their mother

	Indirect effect						
Value of the moderator	Social MAA → Instrumental MRA → Instrumental SR						
	Coeff. (SE)	95% CI					
- 1 sd (729)	026 (.086)	(201, .138)					
Mean (.000)	.137 (.075)	(.006, .297)					
+ 1 sd (.729)	.299 (.112)	(.120, .563)					

3. Discussion

3.1. Adaptation and validation of the PACS

Although the Parent-Adolescent Communication Scale (PACS; Barnes & Olson, 1985) has been widely used internationally to assess children's and adolescents' perceptions of openness and problems in parent-child/adolescent communication, it has not yet been adapted in the Portuguese context. Therefore, one aim of this study was to address this gap in the research literature, by adapting this instrument in a Portuguese sample, and analysing its psychometric properties. Specifically, in the present thesis, we intended to analyse its construct validity in terms of internal structure, reliability, and concurrent validity.

The results of the analyses performed showed that the adaptation of each version of the PACS to a Portuguese sample presented a good model fit, thus supporting the original factor structure, proposed by Barnes and Olson (1985). Results also showed good internal reliability of both factors in the two versions. These good psychometric properties of the present adaptation of the PACS, in terms of factor validity and reliability, supports this measure as a valid and reliable measure of parent-child communications in the context of the present sample, thus supporting its potential to be used with Portuguese children and adolescents, including those with experiences with maltreatment.

Since one of the main aims for the development of the PACS was to provide a valuable instrument for research on the associations between parent-child communication and multiple child/adolescent outcomes, additional evidence of validity was tested analysing the relationship between the PACS dimensions (in both mother's and father's versions) and

parents' reports of the adolescents' internalizing and externalizing behaviour. This analysis showed only two significant correlations: between children's and adolescents' reports of problems in their communication with their mother and their externalizing behaviour. Thus, at first sight, this test seems to have failed to provide strong evidence for the concurrent validity of the PACS in our sample. However, we argue that the fact that adolescents' internalizing and externalizing behaviour was evaluated by their parents (for their mothers) might be underlying these findings, especially regarding the lack of significant associations found between the PACS dimensions and adolescents' internalizing problems.

This argument is supported by previous research showing that correlations among youths' and various adults' (e.g., parents, teachers, mental health workers) reports of youths' problems are only low to moderate, with greater agreement for externalizing problems (Achenbach et al., 1987; Achenbach 2006; Sainero et al., 2015). Children and adolescents tend to be the most accurate reporters of their internalizing symptoms (Achenbach, 1991). Not only internalizing behaviours are typically less observable and less likely to draw attention (Achenbach, et al. 1987), but especially in the context of child maltreatment, research has shown that parents are less empathic and less accurate in recognizing emotions in their children, therefore being less likely to detect their children's displays of internalizing behaviour (Wagner et al., 2015). Indeed, both researchers and clinicians prefer youth to parents as sources of information about internalizing problems, while at the same time perceive them as the least useful source of behaviour ratings regarding externalizing problems (e.g., hyperactivity, inattention, oppositional behaviours) (Loeber et al., 1991). Parents, particularly those who engage in maltreatment parenting practices, may be more sensitive to disruptive behaviours that challenge their authority and disturb overall family relationship climate, and thus be less likely to report internalizing versus externalizing symptoms (Abikoff et al., 1993).

In addition, previous research has suggested that, in the context of child/adolescent maltreatment, despite the documented communication difficulties in parent-child communication (e.g., Alberto, 2008; Beeghly & Cicchetti, 1994; Crittenden, 1981; Drotar & Eckerle, 1989), maltreated children and adolescents have a tendency to idealize their perceptions of their family environement (Siqueira, Tubino, Schwarz, & Dell'Aglio, 2009; Yunes, Arrieche, Tavares, & Faria, 2001), and tipically still perceive their family members as important sources of support (Bravo & Del Valle, 2013; Dinisman, Zeira, Sulimani-Aidan, &

Benbenishty, 2013; Yunes et al., 2001). Therefore, they may be less likely to perceive their communication with their parents as problematic, which may be underlying the scarcity of associations between the PACS dimensions and children's and adolescents internalizing and externalizing behaviour.

This work stands out by being the first adaptation of the PACS in the Portuguese context, thus providing a useful input to future studies focused on its adaptation and validity in larger samples, representative of the wider Portuguese population. It is also an important contribution to research conducted in Portugal examining parent-child/parent-adolescent communication, specifically focused on assessing open as well as problem communication. The adequacy of the factor structure of this adaptation of the PACS regarding the communication with both parents allows, on the one hand, the comparison of father-child and mother-child communication, and, on the other hand, the distinction between the two communication dimensions (i.e., open communication and problem communication), thus allowing an evaluation of their association with multiple outcomes related to family functioning and children's and adolescents' well-being and adjustment as well.

Regarding intervention with families (e.g., family therapy, focused on addressing parent-child interactions through their communication patterns), such comparison not only allows the identification of differences between the communication established with both parents, but also provides important and more nuanced clues to develop intervention strategies that can appropriately address the communication difficulties that are specific of each relationship. The fact that this adaptation was conducted with children and adolescents from families considered as risky and/or in danger (i.e., children and adolescents reported to the child protection system) supports to the potential of this tool to adequately assess parentchild/adolescent communication in risky family environments. This adapted version of the PACS could be an important asset for Portuguese practitioners working with children and adolescents and their parents, in that it can help professionals understand how children and adolescents make meaning of their patterns of communication with their mother and with their father, helping to define important targets for clinical work. Using this measure in the context of an emotionally close relationship with the counsellor may help children and adolescents express their feelings and ideas related to this issue and to develop adequate strategies to tackle potential difficulties in communicating with their parents.

Although these results are relevant regarding the assessment and conceptualization of

parent-child communication this specific sample, offering initial support for Portuguese factor validity of the PACS, and adding to its cross-cultural validity, a more refined investigation is needed to address some limitations of this study. Specifically, there was no data focused on convergent or discriminant validity, which could be analysed in the future to provide additional support to the scale's psychometric properties.

3.2. The looking-glass self in the context of child/adolescent maltreatment

As part of the second study of the present project, this chapter focused on the test of the Looking-Glass Self Hypothesis (LGSH) in the context of child and adolescent maltreatment, through a multimediator path analysis model, considering the relationship between children and adolescents and their mother. As outlined in the theoretical background of the present chapter, several theories on the study of the self converge in asserting that the relational context is paramount for individuals' development, functioning as the primordial both for the construction of self-representations (e.g., Hartup & Laursen, 1999; Hinde, 1997; Reis, Collins, & Berscheid, 2000). Specifically, the LGSH, integrated in the Symbolic Interactionism Theory, highlights the pivotal role of interactions with significant others in the self-representation construction process, positing that self-representations stem from significant others' actual appraisals, through significant others' reflected appraisals (Cooley, 1902; Kinch, 1963; Nurra & Pansu, 2009). The LGSH was supported for each selfrepresentation dimension common to the three perspectives analysed (instrumental, social, emotional, intelligence, and opposition). In addition, findings showed total mediation for the instrumental, social and intelligence domains, and partial mediation for the emotional, physical appearance and opposition domains. These findings thus support the assumption that what mothers think of their sons and daughters (i.e., mothers' actual appraisals) influences what children and adolescents think of themselves (i.e., self-representations), and that this influence is mediated or explained by what children/adolescents think their mothers think of them (i.e., mothers' reflected appraisals).

These results provide further support to the findings of a recent study, conducted with adolescents from a community sample (Martins, 2013), in which the LGSH, tested in the context of parent-child relationships, was supported for the instrumental, social, emotional, and opposition self-representation domains. Another similarity between our study and the one from Martins (2013) regards the total and partial mediation effects: Martins also found that,

in the mother-adolescent model, mediation was total for the instrumental and social dimensions, and partial for the emotional and opposition dimensions. These findings are also in line with previous studies testing the LGSH with children, considering the influence of specific significant others, and focusing on the analysis of their skills perception (Bois et al., 2005; Nurra & Pansu, 2009), in which the LGHS was supported regarding perceived academic, physical and behavioural skills, and social acceptance (Nurra & Pansu, 2009), and athletic skills (Bois et al., 2005). However, our findings expand this previous body of research, by testing the LGSH in the context of child/adolescent maltreatment, with a sample from an under-studied vulnerable population – children and adolescents reported to the child protection system. In addition, this study also adds to previous tests of the LGSH by considering cross-domain effects. Indeed, when testing the LGSH for all self-representations domains together in one model, allows for the consideration of cross-domain relationships, which can provide additional insight about the associations among the several self-representation domains, considering the three perspectives of the LGSH.

As mentioned earlier in this chapter, two important meta-analyses about research on the LGSH (Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979) have highlighted that individuals are not very accurate in their perceptions of others' appraisals of them (i.e. reflected appraisals). In fact, as underscored in these meta-analyses, the empirical evidence regarding the test of the LGSH has been quite inconsistent. Research focused on reflected appraisals accuracy has shown that accuracy at the dyad level (i.e., accuracy related to a specific relationship) is less frequent than the generalized accuracy (i.e., a global appraisal of what others in general think of oneself) (Kenny & DePaulo, 1994). However, it has also been suggested that in the context of closer relationships, namely with significant others characterized by more frequent interactions between the appraiser and the target, more opportunities for communication of one's appraisals, and a higher motivation to pay attention to the clues and feedback provided by the other – it is possible to observe a greater accuracy in individuals' reflected appraisals, that is, a stronger association between others' actual appraisals and reflected appraisals (Cook & Douglas, 1998). Our findings support this assumption, given the significant association found between mothers' actual appraisals and reflected appraisals in all domains assessed (i.e., instrumental, social, emotional, intelligence, and opposition). As also in line with the previous research on this topic, namely the study developed by Martins (2013), these associations were not as strong as the ones observed between mothers' reflected appraisals and children's and adolescents' self-representations. However, an interesting difference between that study and the present one regards de amount of variance explained in the several self-representation dimensions: in Martins' (2013) study, the LGSH model considering the relationship with the mother, the percentage of variance explained in the instrumental, social, emotional and opposition dimensions was higher than in our study. Considering that the quality of the interactions between children/adolescents and their mothers may be significantly higher in normative than in maltreating family environments (e.g., Repetti et al., 2002), this difference between these study's findings is not surprising. Indeed, it is likely that the information about the relevant attributes may be less clearly communicated within mother-child interactions in the context of child/adolescent maltreatment than in a normative relationship context. Therefore, though strongly supporting the LGSH, this study's findings suggest that, in a maltreating family environment, children and adolescents' reflected appraisals precision is lower than in a normative context, thereby weakening the strength of the mediation pathways between mothers' actual appraisals to children's and adolescents' self-representations through mothers' reflected appraisals.

Research on the individuals' self-representation construction process has also emphasized the importance of considering the dimensions under analysis, given that such influence might vary depending on the representation contents under analysis: not only it has been shown that, in some dimensions, specific others' influence is stronger (e.g., Nurra & Pansu, 2009) but it has also been suggested that the dimensions measured need to be relevant to the target (Cook & Douglas, 1998), the specific others under consideration, and the relationship between the target and observer. Consistent with these claims, by using a self-representation measure developed and validated in the Portuguese context (Martins, 2013; Silva et al., 2016), and identifying the most salient attributes in mothers' actual appraisals and reflected appraisals, the measures used to assess the LGSH components allowed the test of this hypothesis with dimensions that were relevant for both the target (i.e., children and adolescents) and the observer (i.e., mothers).

In addition, it has been argued that, to test the LGSH, it is important to consider self-representation dimensions that are likely to be communicated in the relationship with significant others, and that, therefore, can more easily provide observable clues of how they perceive the target (Cook & Douglas, 1998). Consistent with this recommendation, most of the attributes that compose the self-representations dimensions under analysis in this study

reflect behavioural aspects that can be easily observed and communicated in interactions with others, thus conferring greater power to this test of the LGSH. In the present study, although all SR dimensions evaluated were significantly predicted by mothers' actual appraisals and reflected appraisals, the stronger effects of actual appraisals on reflected appraisals and on self-representation were observed in the instrumental and opposition dimensions. This finding is in line with the literature emphasizing that significant others' influence on individuals' self-representation may be stronger in some dimensions than others (Bois et al., 2005; Branje, Van Aken, Van Lieshout, & Mathijssen, 2003; Felson & Reed, 1986; Cole, 1991), especially those including more observable characteristics, such as the attributes composing the instrumental (i.e., organized, messy, hardworking and responsible) and opposition (i.e., stubborn and grouchy) dimensions.

These two dimensions of self-representations are very salient for children and adolescents in the age range considered in this study. Indeed, from late childhood through middle adolescence, important transitions take place in the school context, namely the transition to middle school. Being a student is one of the most prominent social roles for children and adolescents in this age range. Therefore, instrumental self-representations, such as responsible, organized and hardworking, are particularly salient. Also, considering the normative transformations that occur in the mother-child relationships during this developmental period, the opposition dimension (i.e., grouchy and stubborn attributes) is also very salient in mother-child interactions, particularly in early adolescence, given that children transitioning into adolescence progressively seek greater autonomy. This entails an increasing detachment from parents, often leading to an increase in the conflict experiences with them (e.g., Collins & Repinski, 1994).

Nevertheless, the inclusion of significant others from adolescents' broader social network in the test of the LGSH could emphasize other SR dimensions as more susceptible to their influence (Nurra & Pansu, 2009). For example, peers' influence could be stronger for the social and physical appearance self-representations, given the normative age-related scrutiny and critical evaluation by peers (e.g., regarding clothes, hair styles, activities and interests) that typically lead to the feeling that they are as preoccupied with one's behaviour and appearance as the child/adolescent is him or herself (Vartanian, 2000). However, parents' influence in the instrumental dimension, would remain relevant, even after taking into account the influence of peers.

The moderating role of mother-child communication

After obtaining support for the LGSH, the moderating role of mother-child communication, perceived by children and adolescents, in the association between MAA and MRA was tested. We intended to analyse if there were differences in the strength the association between MAA and MRA depending on the quality of mother-child communication. Results of this analysis revealed that the cross-domain indirect effect of social MAA on instrumental SR through instrumental SR was only positive and significant for mean and higher levels of (positive) mother-child communication, as perceived by children and adolescents. That is, children and adolescents whose mothers appraise them as nicer, friendlier and more helpful, are more likely to think that their mothers perceive them as responsible, organized and hardworking, and subsequently to perceive themselves in that way, only at mean to higher levels of positive mother-child communication, as perceived by children and adolescents. This finding provides some support to our hypothesis that the quality of parent-child communication - in this case, specifically mother-child communication - could affect the strength of the association between MAA and MRA. A better communication between mother and child/adolescent (i.e., rater and target) could facilitate the transmission of information regarding the children's and adolescents' attributes, thereby increasing the accuracy of mothers' reflected appraisals.

The fact that only one significant moderated mediation effect was found can be interpreted in light of a set of ideas. On the one hand, it seems that when studying the LGSH with parents as significant others, considering relevant dimensions to the rater and the target, and the measurement of the LGSH elements at the same level of specificity, mother-child communication does not emerge as a key condition for identifying a significant relationship between the MAA and the MRA. That is, it seems that, almost regardless of children's and adolescents' perceptions of communication with their mothers, the relational context of close relationships with parents is characterized by a sufficient amount of communication opportunities (both verbal and non-verbal) that enable a strong enough accuracy in children's and adolescents' perceptions of their mother's appraisals of them. The results suggest, however, a tendency for this relationship to be stronger for higher levels of perceived positive communication with their mother.

On the other hand, it may also be that in the context of child/adolescent maltreatment, communication between children/adolescents and their mother may not be as effective as in

normative contexts. Indeed, as mentioned previously, parent-child communication in the context of child/adolescent maltreatment is often characterized by a lower frequency and duration of conversations and dialogs and to be embedded in an overly disorganized linguistic and affective family environment (Beeghly & Cicchetti, 1994; Burgess & Conger, 1978; Drotar & Eckerle, 1989), which may lead to communication difficulties in children and adolescents. Negligent parents typically report lower perceptions of positive communication with their children, and exhibit a less responsive and sensitive discourse towards them (Crittenden, 1981). Parent-child communication in neglecting family environments are usually characterized by rigidity and confusion in family social roles (Alberto, 2008), rejection (e.g., inattention to children's and adolescents' communication attempts) and disconfirming messages (e.g., impervious responses, interrupting, turning away). Therefore, such communication patterns are less likely to allow a clear feedback from parents regarding children's and adolescents' attributes, and, thus may have little influence in the strength of the association between MAA and MRA.

An alternative explanatory hypothesis may be that, despite these less than optimal communication patterns that often characterize parent-child relationships in the context of child/adolescent maltreatment (Alberto, 2008; Beeghly & Cicchetti, 1994; Burgess & Conger, 1978; Crittenden, 1981; Drotar & Eckerle, 1989), the literature in this field also shows that maltreated children and adolescents typically have rather idealized perceptions of their family environment (Siqueira et al., 2009; Yunes et al., 2001). In addition, previous studies have shown that, despite the adversity of experiences within the family, maltreated children and adolescents often perceive family members, especially their mother, as an important source of support (Bravo & Del Valle, 2013; Dinisman et al., 2013; Yunes et al., 2001). Thus, it is possible that, due to idealization of their relationship with their mother, to an attempt to conceal a difficulty, and/or to a lack of experience with better communication patterns with their mother, these children and adolescents may perceive and/or evaluate non-optimal patterns of communication with their mother as normal.

Indeed, in the present study, children's and adolescents' evaluations of their communication with their mother were mostly positive (see Table 8, p. 150). In addition, as can be seen in Table 8, the levels of maltreatment experiences were also tendentially low. This is not surprising considering that, although this study was conducted with children and adolescents reported to the child protection system, the most severe maltreatment cases

usually do not show up for their appointments in children and youth protection committees or were already referred to the public ministry (i.e., family and juvenile court). In addition, only a small proportion of maltreating families belong to a high-risk group (Calheiros, Patrício, Graça, Magalhães, 2017). Thus, it is possible that, in this study, there were no sufficiently negative perceptions of mother-child communication to significantly affect the strength of the association between MAA and MRA in most domains, especially those in which the indirect effect of MAA on SR through MRA was stronger. Indeed, the only significant moderated mediation effect found in this study occurred in one of the weakest indirect effects observed. Thus, the tendentially high levels of positive perceptions of mother-child communication observed in the present study may account for the little support obtained for the moderating role of mother-child communication in the association between MAA and MRA. Nevertheless, analyzing the moderating role of parent-child communication dimensions in these models, comparing normative with high-risk groups would be an interesting direction for future research.

3.3. Limitations and strengths

Despite these contributions of the study, some caveats should be considered in the interpretation of the results. Findings obtained in a previous study (Martins, 2013) highlighted the importance of including both mothers and fathers in understanding the process of adolescents' self-representation construction, since the LGSH was supported considering both parents' specific influence on adolescents' self-representations. Indeed, while mothers' role has been usually emphasized in the analysis of parents' impact on individuals' development, fathers' role, though also recognized as important by both researchers and laypeople, has been notoriously less explored in this research field (e.g., Phares, 1992; Phares, Fields, Kamboukos, & Lopez, 2005). In the present study, despite our effort to include fathers, the low number of participating fathers was not enough to perform the intended analysis, which led to the decision to test the LGSH only in the mother-child relationship. Indeed, the difficulty of recruiting fathers to participate in research focused on identifying risk and protective factors in child/adolescent developmental outcomes, especially in the context of child maltreatment, has been highlighted by several authors (e.g., Calheiros, 2006; Cassano, Adrian, Veits & Zeman, 2006). Although Martins (2013) did not find significant differences between the influence of mothers' and of fathers' actual appraisals and

their children's self-representations, we consider that the present study would be much enriched if the fathers' specific influence could have been analysed. This would not only to contribute to address the underrepresentation of fathers in the research literature, but also to potentially add to the existing evidence by demonstrating fathers' relevance for children's and adolescents' self-representation construction process. Therefore, it would be interesting to replicate this study, investing even further in recruiting participating fathers in order to allow the test of the LGSH in the father-child relationship as well.

In addition, future research on the LGHS should include longitudinal design to empirically reinforce the theoretical assumption of significant others' influence. Also, only mothers were included as significant others. Late childhood to mid-adolescence is marked by a progressive increase in individuals' social network and in peers' importance. Indeed, with age, the agreement between individuals' self-representation and peers' appraisals of the individual increases (Renk & Phares, 2004). Furthermore, research about family influence on children's self-representation has emphasized the role of siblings (Feiting & Taska, 1996). Therefore, future studies should consider other significant others in the analysis of the LGSH.

Despite these limitations, the reliance on multi-informants is a methodological strength of this study, which reduces the proportion of shared informant variance, thus preventing inflated relationships between the model variables. In addition, the findings documented in this chapter add to the literature in this field, by increasing our understanding of the LGSH in the context of relationships with significant others in a sample from an underinvestigated population in this line of research (i.e., children/adolescents with maltreatment experiences and their parents). Also, the fact that we also tested for cross-domain pathways between mothers' actual appraisals, mothers' reflected appraisals and children's and adolescents' self-representations provides is a new approach to the test of the LGSH, which has been usually tested considering only within domain effects, mostly in separate models.

3.4. Concluding remarks

The present study adds to the literature in this field by providing a test of the LGSH with specific significant others, considering the multidimensional nature of self-representations, in an under-studied population in this area of research: children and adolescents reported to the child protection system with maltreatment experiences. It also adds to the study of the LGSH by taking into consideration the potential moderating role of

mother-child communication in the mediational pathways from mothers' actual appraisals to children's and adolescents' self-representations through mothers' reflected appraisals.

Although our findings did not provide strong support for this role in our sample, we consider that this analysis is a valuable contribution to this fields' literature. This research question should continue to be pursued in future studies, namely with normative samples, where children's and adolescents' perceptions of communication with their mother may be less susceptible to idealization. In the present study, given that the aim was to analyse the mediating role of children's and adolescents' perceptions of their mother's appraisals of them (i.e., MRA), we were particularly interested in analysing children's and adolescents' perceptions of these communication patterns. However, in future studies it would also be interesting to consider mothers' and fathers' perceptions as well, as potential moderators of the link between parents' actual appraisals and reflected appraisals. In addition, previous studies have shown that, as age increases, children tend to report more negative perceptions of communication with their parents (Keijsers & Poulin, 2013). Therefore, it would also be interesting to consider age as a moderator when considering the moderating role of parent-child communication in the association between parents' actual appraisals and reflected appraisals.

Even though this study provides further support to the claim that it is through social interaction and participation that information relative to the contents of self-representations is shared and acquired, it is also important to bear in mind that individuals are not merely a product of social interaction and influence. Instead, as described in the first chapter, as individuals participate in their social contexts, they also have an active role in this process through their capacity to think about, and organize, the information about their experiences and themselves (e.g., Leary, 2006).

Despite this consideration, this studies' findings support the theoretical main assumption that children's and adolescents' self-representation construction process is influenced by significant others' actual appraisals, through significant others' reflected appraisals, by highlighting the significant role of the mothers' actual appraisals in children and adolescents' self-representations through mothers' reflected appraisals. These findings support the assumption that LGSH illustrates a complex and contextualized process of significant others' influence on children's and adolescents' self-representations. Given that the research literature about the LGSH has been marked by inconsistencies regarding the role

of others in the construction of the self, findings of this study makes an important contribution to that debate. Specifically, our results add to a growing body of research that suggests that the mediational pathways proposed by the LGSH are stronger and clearer in the context of close relationships with significant others. Specifically considering the mother as the significant other, the results suggest that this is so even in relational contexts where mother-child communication may be more hampered, such as in the context of maltreating parenting practices. Taken together, the findings reported in the present chapter bear important practical implications that will be addressed in the last chapter (i.e., Chapter VI - Conclusions).

CHAPTER V

THE ROLE OF SELF-REPRESENTATIONS IN THE LINK BETWEEN
ADVERSE FAMILY EXPERIENCES AND CHILDREN'S AND
ADOLESCENTS' PSYCHOSOCIAL FUNCTIONIN

I. Theoretical framework

1. Adverse family experiences and children's and adolescents' psychosocial functioning

Research has consistently suggested that families characterized by overt family conflict, manifested in recurrent episodes of anger and aggression, deficient nurturing, and especially by family relationships that are cold, unsupportive, and neglectful, create vulnerabilities in children and adolescents that lead to disruptions in their psychosocial functioning (Repetti et al., 2002). Difficulties in psychosocial functioning in childhood and adolescence are often discussed in terms of two broad categories of symptomatic behaviour that relate to self-control or self-regulation, internalizing and externalizing problems (Achenbach et al., 2014; Repetti et al., 2002). Even though both behaviour types tend to cooccur, each one also presents clearly distinctive features. Internalizing symptoms includes negative emotions such as depression and anxiety as well as social withdrawal, and are sometimes referred to as problems of over control. On the other hand, externalizing symptoms involve aggression, opposition and delinquent behaviours, and are sometimes referred to as problems of under control. Therefore, while in internalizing symptoms there is often a high level of behavioural inhibition, externalizing symptoms refer to a greater difficulty in successfully inhibiting socially prohibited or inadequate behaviour and controlling impulses (Eisenberg, et al., 1996).

Both cross-sectional and prospective studies have widely documented associations between overt conflict and aggression in the family and an increased risk for a wide variety of psychosocial adjustment problems in children and adolescents, including aggression, conduct disorder, delinquency and antisocial behaviour, anxiety, depression, and suicide (Emery, 1982, 1988; Grych & Fincham, 1990; Kaslow, Deering, & Racusia, 1994; Reid & Crisafulli, 1990; Wagner, 1997). Adverse family experiences, ranging from exposure to quarrelling and aggressive interparental relationships to exposure to, or being a target of, violence and abuse at home show associations with mental health problems in childhood and adolescence, with lasting effects into the adult years (Repetti et al., 2002).

Family contexts marked by destructive interparental conflict and child/adolescent maltreatment are often characterized by an overall lack of cohesiveness, warmth, and support within the family, as well as with children's and adolescents' feelings of alienation, detachment, or lack of acceptance, which pave the way for a wide range of concurrent and

long-term psychosocial functioning difficulties (Repetti et al., 2002). Indeed, as mentioned previously, associations between exposure to destructive interparental conflict and multiple child and adolescent maladjustment outcomes including internalizing and externalizing problems have been consistently documented in the literature (e.g., Buehler et al., 2007; Rhoades, 2008). Likewise, abusive and neglectful parenting practices, which restrain, invalidate, and manipulate children's psychological and emotional experience and expression, have also been consistently associated with both internalizing and externalizing symptoms in children and adolescents (Barber, 1996; Repetti et al., 2002). Particularly, research has associated emotional neglect of children, unresponsive or rejecting parenting, lack of parental availability for involvement in, and supervision of, child activities with internalizing symptoms such as depression, suicidal behaviour, and anxiety disorders (Chorpita & Barlow, 1998; Kaslow et al., 1994), and externalizing symptoms such as aggressive, hostile, oppositional, and delinquent behaviour (Barber, 1996; Rothbaum & Weisz, 1994; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994).

2. Adverse family experiences and children's and adolescents' self-representations

An increasing body of research is showing that children in high-conflict family environments are more likely to have more negative working models of family relationships and to have more negative views of themselves and their social worlds (Grych et al., 2003; Schermerhorn et al., 2008; Shamir et al., 2001). The unresponsive caregiving commonly associated with adverse family experiences such as interparental conflict and, even more so, child/adolescent maltreatment may lay the groundwork for negative biases in social information-processing and mental representations of self and others (Repetti et al., 2002). Children's and adolescents' expectations about the unresponsiveness of their caregivers may be integrated in their self-concept in the form of negative self-representations (Holmes & Cameron, 2005). Previous research clearly suggests that these experiences may be particularly detrimental to children's and adolescents' self-construction process. As outlined in the theoretical framework presented in chapter two, and as previously reported in findings of Study 1 of this thesis (see Chapter III), a few studies have shown experiences with destructive interparental conflict have been associated with negative self-representations and decreased self-esteem in children and adolescents (Grych et al., 2002; Isabella & Diener, 2010; Siffert et al., 2012; Silva, Calheiros, & Carvalho, 2016a). As our findings suggest, an

increased emotional insecurity in face of interparental conflict may compromise children's and adolescents' confidence in their day-to-day activities, and thus their assurance about their qualities (Silva et al., 2016a). In parallel, caregivers overwhelmed by destructive interparental conflict are more likely to be less emotionally available, responsive and nurturing (Emde & Easterbrooks, 1985; Erel & Burman, 1995; Silva & Calheiros, 2017). The hardship of dealing with marital discord may compromise caregivers' capabilities to scaffold, encourage and approve their children's experiences of competence, thus undermining their opportunities to construct positive self-representations that reflect their qualities and abilities (Erel & Burman, 1995; Siffert et al., 2012).

Likewise, children's and adolescents' experiences with maltreating (i.e., abusive and neglecting) parenting practices have also been associated with more negative selfrepresentations and other self-system processes (Bolger et al., 1998; Kim & Cicchetti, 2006; Egeland et al., 1983; Kaufman & Cicchetti, 1989; Okun et al., 1994; Toth et al., 1997; Toth et al., 2000; Toth et al., 1992). Unresponsive, rejecting, punitive, or neglectful caregivers, lacking in nurturance, encouragement and approval, are more likely to reinforce their children's negative self-representations (Briere, 1992; Fischer & Ayoub, 1994; Harter, 1998a, 2015; Herman, 1992; Terr, 1991; Westen, 1993). This predominance of negative feedback regarding their children's behaviour and characteristics hinders the normative integration of positive and negative attributes. The negative self-representations, instilled in hostile family environments, become automatized (Siegler, 1991), and increasingly resistant to change, especially from around 8 years old onwards, with the onset of the earlier phases of abstract thinking. At this stage, exposure to a predominant negative feedback may hamper children's cognitive advance and reinforce an all-or-none thinking pattern characteristic of young and middle children, leading them to view themselves in an overwhelmingly negative way (Harter, 2015).

Over controlling or intrusive parents also prevent children's and adolescents' experiences of competence and autonomy, thus constraining their opportunities to construct self-representations that reflect those experiences, and, consequently, preventing their healthy psychosocial functioning (Deci & Ryan, 1991, 2000; Harter, 2015). Abusive parents, in particular, often set unrealistic performance expectations that, because they are unattainable, cause feelings of personal failure in their children. If subjected to severe and chronic abuse, children and adolescents, more than merely constructing negative self-perceptions, may come

to view themselves as profoundly defective, at the level of domain-specific self-representations and one's sense of overall self-worth as well (Briere, 1992; Fischer & Ayoub, 1994; Harter, 1998a; Herman, 1992; Terr, 1991; Westen, 1993). Furthermore, they are more likely to blame themselves for their perceived negative attributes, and to view their flaws as more stable (Harter, 1998a).

Especially in middle adolescence, experiences with maltreatment, particularly abuse, can lead to dissociative symptoms that serve to further fragment the fragile normative multiple selves in the process of psychological construction during this phase (Harter, 1998a; Putman, 1993; Westen, 1993). This increased distance between multiple selves may prevent the construction of a core guiding integrated self. Multiple selves may, instead, become "alter" selves, leading to the risk for dissociative identity disorders, which are severe pathological conditions. Research also suggests that maltreatment experiences, particularly abuse, may impact the valence (positive or negative) of those attributes evaluated as one's core self vs. more peripheral attributes. Normatively, adolescents define their most important attributes as positive, and their more negative characteristics are not only allocated to the periphery of the self, but are also reported to be less important (Harter & Monsour, 1992). This normative self-protective strategy has been designated as the "beneffectance" effect (Greenwald, 1980). However, compared to a normative sample, seriously abused adolescents have presented exactly the opposite pattern, identifying their negative attributes at their core self, and the few positive characteristics they could acknowledge as peripheral (Fischer & Ayoub, 1994). Overall, research suggests that experiences with negative parenting, either associated with, or independent of, interparental conflict, lead to disturbances in the selfsystem (Harter, 1998a; Kim & Cicchetti, 2006; Toth et al., 1997).

3. Associations between self-representations and psychosocial functioning

As highlighted previously, in addition to considering that self-representations are cognitive constructs, crafted through the social interactions occurring within individuals' development contexts, theories also converge in asserting that self-representations are forces for action and influence behaviour (Oyserman et al., 2012). Indeed, social-cognitive theory and research have stressed the role of children's self-representation as a pivotal predictor of individuals' psychosocial functioning. Several studies have found associations of positive self-representations with better behavioural adjustment and diminished symptomatology

(Caldwell et al., 2004; Damon & Hart, 1988; Davis-Kean et al., 2008; King et al., 1993; Harter, 1998b; Ryan, Stiller, & Lynch, 1994; Salmivalli & Isaacs, 2005; Segal & Blatt, 1993). For example, a considerable body of research has revealed that there is a very robust relationship between negative self-representations and depression (Cole, Jacquez, & Maschman, 2001; Harter & Marold, 1993). In a similar vein, Caldwell and colleagues (2004) report that within an early adolescence sample, negative self-representations were predictive of disengagement from peers, which in turn contributed to heightened stress in peer relationships. Salmivalli and Isaacs (2005) report that 5th- and 6th-graders' negative representations of "social" self (i.e., the self, considered within a peer context) served as a risk factor for multiple forms of peer adversities, such as peer victimization and rejection, which in turn influenced children's perceptions of their peers.

So, different self-representation domains, measured with several standardized scales, have been related to a diversity of well-being, achievement and adjustment outcomes. Namely, self-representations about school ability, peer acceptance, physical appearance, and physical abilities have been linked to academic achievement, peer adjustment, and eating and exercise behaviours, respectively (Harter, 2006, 2015; Marsh & Craven, 2006; Tatlow-Golden & Guerin, 2016). Thus, family experiences and caregiving practices resulting in negative self-representations can put children and adolescents at risk for a wide range of problematic behaviours and/or psychopathological manifestations (Harter, 2006a, 2015).

Research has also shown that children and adolescents often engage in false self behaviour, that is, acting in ways that do not reflect one's true self (Harter, Marold, Whitesell, & Cobbs, 1996; Steinberg & Moris, 2001). Around 8-10 years of age, as older children start to evaluate themselves more realistically and to display more negative self-representations and self-esteem, false-self behaviour starts to emerge. This normative liability may spur the manipulation of how the self is presented to the social world, leading to displays of false-self behaviour (Harter, 2015), which may include "not saying what you think," "expressing things you don't really believe or feel," "not stating your true opinion," and "saying what you think other people want to hear" (Harter et al., 1996; Harter, Waters, & Whitesell, 1997).

Starting in middle to late childhood until middle to late adolescence, caregivers who make their support and approval conditional upon the child or adolescent meeting very high, unrealistic or unattainable expectations (i.e., conditional support) put their children at risk of unhealthy levels of false-self behaviour (Harter, 2015). Conditional support from parents

specifies the behavioural contingencies through which children and adolescents could please them. Thus, children and adolescents who experience high levels of such conditional support are more likely to engage in false self behaviours. That is, they may learn to suppress what they feel are true self-attributes, in an attempt to gather the needed approval, support, and validation from parental caregivers and other significant others from their social network (Harter et al., 1996), a process that can first be observed in middle to late childhood (Harter, 2015).

Conditional support is more likely to occur in high-conflict and insecure family environments, namely those marked by interparental conflict or child/adolescent maltreatment. Children and adolescents in high-conflict homes energize their psychological resources so that they can cope efficiently with the threat and related emotional arousal instead of promoting their adjustment (Forman & Davies, 2005). If children and adolescents experience their parents as inaccessible, frightening, or inconsistent, seeking protection and support from them directly is not likely to be effective in regaining security. Thus, as the emotional-security hypothesis postulates, they may actively alter reality to obtain emotional security (Cummings & Davies, 1996; Davies & Forman, 2002). Therefore, their attempts to preserve their sense of security could result in self-alienation or false self behaviours.

Regarding experiences with interparental conflict, as highlighted before in chapter III of the present thesis, parents' inability to resolve their own disputes effectively in a way that preserves family harmony tackles children's confidence in the ability of the family to act as a source of security (Ackerman, Kogos, Youngstrom, Schoff, & Izard, 1999). This threat to children's and adolescent basic emotional needs may lead the self to split into false-self and true-self constructions causing false self behaviours to occur (Goldner & Berenshtein-Dagan 2016). Children and adolescents experiencing chronic and severe abuse and neglect are at an even greater risk for suppressing their true self and for displaying false-self behaviour (Harter, 1998a). Abusive and neglectful parenting practices, reflecting conditional support, lack of validation, threats of harm, coercion, and enforced compliance all impel the true self to submerge, giving place to a socially entrenched self (Bleiberg, 1984; Stern, 1985; Sullivan, 1953; Winnicott, 1965). Children and adolescents not only feel that significant others do not value their true self, but they come to devalue it themselves. At the same time, is likely that these negative self-representations may be accompanied by grandiosity (Toth et al., 2000). The more they feel this way, the more likely they are to display false self behaviour (Harter et

al., 1996).

The issue of false-self behaviour displays is also related with evidence showing that children's and adolescents' self-representations differ across social contexts. Indeed, the proliferation of social roles that demand the creation of multiple selves may lead to conflicting self-representations and to the experience of confusion, making authenticity more difficult (Harter, Bresnick, et al., 1997). Contradictory self-attributes stemming from those multiple selves contribute to unstable self-representations that are difficult to integrate into a unified and coherent sense of self. Given that adolescents see themselves differently when they are with parents, teachers and peers (Harter et al., 1996), their behaviour may also differ across these relational contexts, according to the values that are more salient in each relationship context or social setting. Regarding the parent-child relationship context, research has shown that, especially in more collectivistic cultures, parents tend to emphasize social relations, respect for authority, and proper behaviour (e.g., Carlson & Harwood, 2003; Delgado-Gaitan, 1994; Leyendecker, Harwood, Lamb, & Scholmerich, 2002). These dimensions are also highly emphasized in the school context, and especially in the classroom setting by the teachers (Abikoff et al. 1993; Achenbach et al., 1987; Larsson & Drugli, 2011, Youngstrom et al., 2000).

Furthermore, research has supported the idea that self-perceptions may develop unevenly across domains (Burnett, 1996; Cole, Maxwell, et al., 2001; Harter, 2015; Shapka & Keating, 2005; Salley, Vannatta, & Gerhardt, 2010). From late childhood and early adolescence onwards, interpersonal attributes and social skills that influence one's social appeal become typically quite salient (Damon & Hart, 1998). Consequently, there is a dramatic increase in social awareness, which leads to a greater self-awareness of how one's attributes are viewed by others (Harter, 2015). In addition, the age-related scrutiny and critical evaluation by peers (e.g., regarding clothes, hair styles, activities and interests) typically lead to the feeling that others, especially peers, are as preoccupied with his/her behaviour and appearance as he/she is, and that peers are constantly submitting him/her to scrutiny evaluation (Vartanian, 2000). Given that physical appearance and peer social acceptance are more strongly correlated to global self-esteem (Harter, 1990, 2000), social and physical appearance self-representations present developmental specificities that may account for differences in their associations with psychosocial functioning as compared to other self-concept domains. Particularly, they may be more prone to instil false self behaviour

manifestations. In their attempt to incorporate the standards and opinions of others, children and adolescents may develop conflicting self-guides across different relational contexts as they attempt to meet the incompatible expectations of parents and peers (Harter, 2015; Harter et al., 1996; Higgins, 1991). Indeed, Harter et al. (1996) found that the main motivation underlying false-self behaviour in adolescents is their desire to gain acceptance and approval both from parents and peers, although parents' conditional support emerged as the stronger psychological cause.

Social and physical appearance self-representations may also be particularly vulnerable to bias or inaccuracy through overestimation (e.g., Baumeister, Smart, & Boden, 1996; David & Kistner, 2000). While overestimation may, on the one hand, serve as a protective factor and be essential for mental health (Taylor & Brown, 1988), on the other hand, for some people, it can be an indicator of emotional or social difficulties. For example, several studies have shown that children who overestimate their social attributes (e.g., social acceptance) have greater emotional and behavioural problems (Dubois & Silverthorn, 2004) or are more aggressive (David & Kistner, 2000; Hughes et al., 1997; Hymel, Bowker, & Woody, 1993; Patterson, Kupersmidt, & Griesler, 1990). Young adolescents who are overly preoccupied with the importance of the opinion of peers are also more likely to report being depressed (Harter, 2015).

II. Goals and hypothesis

Despite the sound body of research indicating important and complex associations between children's and adolescents' self-representations and their psychosocial functioning, in the wide research literature documenting associations between adverse family experiences of destructive interparental conflict and maltreating parenting practices and children's and adolescents' behavioural adjustment, no studies have yet analysed self-related variables, more specifically self-representations, as mediators of the association between those adverse family experiences and children's and adolescents' psychosocial functioning. The analysis of the mediational pathway from adverse family experiences to children's and adolescents' externalizing and internalizing behaviours through their domain-specific self-representations becomes particularly pertinent from late childhood onwards. As children progress into early adolescence, they begin to search for a more coherent, sophisticated and abstract sense of self and of how they fit into their social worlds (Steinberg, 2013). They start discovering and

creating their own unique selfhood as separate from that of their parents and others (Steinberg & Silk, 2002). Evidence has shown that the self becomes increasingly more complex and differentiated with the progressive creation, definition, and differentiation of social roles, relationships, and situations (Harter, Bresnick, et al., 1997; Harter, Waters, et al., 1997; Markus & Nurius, 1986).

In addition, since children's and adolescents' self-representations and behavioural manifestations may differ across social relationship contexts, in the evaluation of children's and adolescents internalizing and externalizing behaviour it is important to consider the most relevant relational contexts in which they develop. Notwithstanding the pivotal relevance of the family and parent-child relationship context, since children and adolescents spend the greater part of their waking time at school (Eccles & Harold, 1993), the school is also stage for a broad range of personal and interpersonal experiences that are likely to be influenced by their self-representations. In addition, teachers are often the main non-familial adults in their lives (Eccles & Harold, 1993). Thus, teachers' ratings about children's and adolescents' internalizing and externalizing behaviour at the school context are essential to achieve a more comprehensive picture of children's and adolescents' psychosocial functioning (Denham, Bassett, & Zinsser, 2012; Sette, Baumgartner, & MacKinnon, 2015) and of how their domain-specific self-representations may be associated with their behavioural adjustment.

Considering the lack of studies regarding the mediating role of children's and adolescents' domain-specific self-representations in associations between adverse family experiences and their psychosocial functioning, we intended to analyse these mediational pathways in both studies of this thesis. Thus, we aimed to analyse the mediating role of children's and adolescents' domain-specific self-representations in associations between: 1) their exposure to destructive interparental conflict and their internalizing and externalizing behaviour, as perceived by their homeroom teachers, in Study 1; and 2) their experiences with maltreating parenting practices and their internalizing and externalizing behaviour, as perceived by their mother/father, in Study 2. Specifically, we hypothesize that both interparental conflict and maltreatment experiences would have a significant negative effect on both children's and adolescents' self-representations and psychosocial functioning (i.e., internalizing and externalizing behaviour). We also expected that in both studies, that association would be mediated by at least some domains of children's and adolescents' self-representations. However, given the existing research literature on the occurrence of false self

behaviour in family contexts marked by high levels of conditional support, we also expected that the intervening role of self-representations would be complex, namely differing across different self-representation domains.

Furthermore, in the Study 2 model, given the larger age range of the participating children and adolescents, and since previous evidence has shown differences in self-representations in different age groups (e.g., Harter, 2015; Marsh, Parker, & Barnes, 1985), participants' age will be analysed as moderator in the second model. To the extent that self-representations in different domains might be less differentiated in late childhood than in adolescence, and given that adolescents focus more than children on social and relational aspects of the self, coincident with increased social-cognitive ability to understand the thoughts and feelings of others (Keating, 1990; Doyle, Markiewicz, Brendgen, Lieberman, & Voss, 2000), pathways from child/adolescent maltreatment experiences to their internalizing and externalizing behaviours, through their domain specific self-representations might be stronger as age increases.

III. Empirical evidence

Overview

As mentioned above, this chapter includes part of both studies that compose the present thesis. Based on the research goals just outlined, the empirical evidence presented in this chapter will focus on the analysis of the mediating role of children's and adolescents' self-representations in associations between adverse family experiences and their psychosocial functioning. The first study focused on children's and adolescents' experiences with interparental conflict, and, on the second study, on their maltreatment experiences, as predictors. Given that data from both studies will be presented, the empirical section of this chapter will be presented in two parts: one regarding the data from the first study, and another including the data of the second study. Each part will include a brief description of the methodology, followed by the respective mediation model test results. Given that the participants and studies procedure were already described in chapters III and IV, regarding respectively Study 1 and Study 2, in order to avoid repetition, in the present chapter the methodology section will only focus on the instruments used to measure the studies variables – with a more detailed description of only the measures that were not presented previously – and on the description of the analyses procedure.

1. The mediating role of children's and adolescent' self-representations in associations between interparental conflict and internalizing and externalizing behaviour

1.1. Methodology

1.1.1. Measures

a) Interparental conflict

Exposure to interparental conflict was assessed using the Conflict Properties Scale (CPS) from the Children's Perceptions of Interparental Conflict Questionnaire (CPIC; Grych et al., 1992; Sani, 2006), described in page 68.

b) Self-representations

Self-representations were measured with the Self-Representation Questionnaire for Adolescents (SRQA; Martins 2013; Silva et al., 2016), consisting of 18 attributes (10 positive - e.g., happy, intelligent; and 8 negative - e.g., sad, lazy), as described in page 69.

c) Internalizing and Externalizing Behaviour

Children's and adolescents' homeroom teachers completed the internalization and externalization scales of the Teacher Report Form (TRF, Achenbach & Rescorla, 2001; Achenbach et al., 2014), a scale designed to assess behaviour problems and social competence among children and adolescents, as described in page 71.

1.1.2. Data analysis

Initial analyses included missing value analysis, descriptive statistics and bivariate correlations among the predictor, criterion and mediator variables, and the co-variates as well. Prior to conducting descriptive, correlation and model test analyses, missing data within each measure were analysed, using IBM SPSS v20 (IBM Corp., 2011). The amount of isolated missing data within the study measures from 0 to .9% for the CPS, from 0 to .4% for the SR measure, from 0 to 1.2% for the Internalizing Problems Scale, and from 0 to 1.2% for the Externalizing Problems Scale, which is considered small (Widaman, 2006). Missing estimations were run using an estimating method [CPS: Little's MCAR test chi-square = 10.22, DF = 72, p = .003; normed chi-square = 1.53 (so <2); SR: Little's MCAR test chi-square = 207.076, DF = 117, p < .001; normed chi-square = 1.77 (so <2); Internalizing

behaviour: Little's MCAR test chi-square = 131.43, DF = 56, p < .001, normed chi-square = 2.34; Externalizing behaviour: Little's MCAR test chi-square = 26.73, DF = 15, p = .031, normed chi-square = 1.53 (so <2)] that led to the conclusion that isolated missing were most likely at random (MAR) (Ullman, 2001). For each measure, the expectation maximization algorithm was used to impute missing data using all information available from observations on the other variables.

According to the procedure used in several studies using the CPIC scale (e.g., DeBoard-Lucas et al., 2010; Fosco & Grych, 2008; Simon & Furman, 2010), interparental conflict was a composite variable computed by summing up the 19 items of the CPS. Similarly, following authors' instructions (Achenbach et al., 2014), internalizing and externalizing behaviour were also composites derived by summing up the items comprised in each scale. Children's and adolescents' SR consisted of 6 composite variables, parcels of the respective items that compose each dimension.

a) LGSH mediation analyses

Preceding the test of the mediation model, another missing value analysis conducted with all model variables revealed that missing data were completely at random (MCAR; Little's MCAR test chi-square = 28.186, DF = 24, p = .252). Therefore, missing data were dealt with using Full Information Maximum Likelihood (FIML), using MPlus 7.1. (Muthén & Muthén, 1998–2012). The proposed mediation model was tested using path analysis, performed with MPlus 7.1. (Muthén & Muthén, 1998-2012), with bootstrap estimation. A multimediator path analysis was conducted to test indirect effects of interparental conflict on children and adolescents' internalizing and externalizing behaviour (as perceived by their homeroom teachers), through their domain-specific self-representations. Given that previous studies have shown significant age and sex differences in self-representations (see Harter, 2015), participants' age and sex were included in this model as covariates. Based on theoretical assumptions as well as on the correlation analysis results, the disturbances of the SR dimensions shown to be significantly correlated and of the psychosocial functioning dimensions were allowed correlate in the model. We used a bootstrap approach to test the mediation hypothesis (Shrout & Bolger, 2002), through performing a nonparametric resampling method (bias-corrected bootstrap) (Preacher & Hayes, 2004) with 10000 resamples drawn with replacement from the original sample to derive the 95% confidence

interval for the indirect effect. To evaluate model fit, the following fit indexes and criteria were used: the relative χ^2 index (χ^2/df) values ≤ 2 (Arbuckle, 2011), the comparative fit index (CFI) > .95, the root mean square error of approximation (RMSEA) < .05 and the standardized root mean residual (SRMR) < .08 suggest a good fit (Hu & Bentler, 1999; Schreiber et al., 2006).

1.2. Results

1.2.1. Descriptive statistics and correlations

The means, standard deviations, and correlations among the variables included in the model are presented in Table 11. It is important to note that in the present sample, the mean levels of both internalizing and externalizing problems are quite low, below the borderline, and thus cannot be considered as problems, but instead as non-problematic displays of internalizing and externalizing behaviour. Interparental conflict was significantly negatively correlated with all self-representation (SR) domains, except for the intelligence SR. Significant positive correlations were observed among all SR domains, except for opposition SR which was only significantly correlated with instrumental SR. Interparental conflict was not significantly correlated with internalizing or externalizing behaviour. Regarding the correlations between the SR dimensions and psychosocial functioning dimensions, only instrumental and opposition SR were significantly negatively correlated with externalizing behaviour. Finally, children's and adolescent' age was significantly negatively correlated with opposition SR, and significantly positively correlated with internalizing behaviour.

1.2.2. Mean differences on children's and adolescents' sex

The criterion variables were analysed considering children's and adolescents' sex (the results of the analysis of potential sex differences in the predictor and mediator variables were reported in chapter III). Results revealed significant differences between girls and boys only externalizing behaviour: homeroom teachers reported higher levels of externalizing behaviour in boys than in girls (cf. Appendix C, Table 1).

Table 11.

Descriptive statistics and bivariate correlations among the model variables (N=243)

	M	SD	1	2	3	4	5	6	7	8	9
1. Age	13.46	1.46									
2. Interparental conflict	9.38	7.94	09								
3. Instrumental SR	3.71	.67	01	20**							
4. Social SR	4.09	.69	11	29***	.49***						
5. Emotional SR	4.27	.71	01	33***	.28***	.24***					
6. Physical appear. SR	3.94	.97	05	21**	.29***	.38***	.34***				
7. Intelligence SR	3.58	.89	07	12	.36***	.41***	.17**	.46***			
8. Opposition SR	3.04	.96	20**	18**	.24***	04	.13	.02	.04		
9. Internalizing behaviour	6.70	5.64	.27***	.08	07	.11	12	05	15	.03	
10. Externalizing behaviour	5.90	9.93	.07	.07	19*	.06	.04	.06	13	24**	.27***

Note. * p < .05 ** p < .01 *** p < .001. SR = Self-representations, M = Mean, SD = Standard deviation.

1.2.3. Mediation model

As can be seen in Figure 7, a multi mediator path analysis model was estimated examining instrumental, social, emotional, intelligence, physical appearance and opposition SR as intervening mechanisms in associations between interparental conflict and children' and adolescents' internalizing and externalizing behaviour, as perceived by their homeroom teachers. The model presented a very good fit to the data χ^2 (7) = 7.26, p = .40; χ^2/df = 1.04; CFI = .99; RMSEA = .01, 90% CI [.00 to .08]; SRMR = .02). Figure 7 depicts the unstandardized bootstrap parameter estimates of the path analysis model.

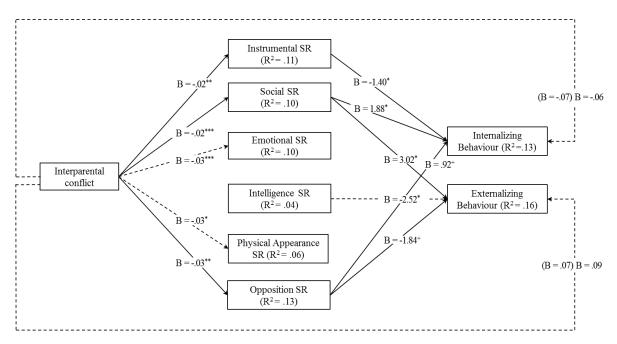


Figure 7 – Model examining the mediating role of children's and adolescents SR in associations between interparental conflict and their internalizing and externalizing behaviour. Arrows in solid refer to significant indirect effects. Beta coefficients in brackets refer to the total effect of IC on SR dimension. For ease of interpretation, only significant effects are represented, except for the direct and/or total effects presented adjacent to the respective total/direct effects. SR = Self-representations. *p < 0.05 **p < 0.01 ***p < 0.001

After controlling for the potential effects of children's and adolescents' age and sex, results revealed significant indirect effects of interparental conflict on homeroom teachers' reports of children's and adolescent': 1) internalizing behaviour, through instrumental (B = .02, 95% CI [.002, .059]), social (B = -.04, 95% CI [-.107, -.008]) and opposition SR (B = -.02, 95% CI [-.063, -.001]), and 2) externalizing behaviour, through social (B = -.07, 95% CI [-.002, -.109]) and opposition (B = -.04, 95% CI [.000, .121]) SR. So, regarding internalizing

behaviour, children and adolescents exposed to higher levels of interparental conflict reported: 1) lower instrumental SR, which, in turn, were associated with higher levels of internalizing problems reported by their homeroom teachers; and 2) lower social SR and opposition SR, which, subsequently were associated with lower levels of internalizing behaviour reported by their homeroom teachers. As for externalizing behaviour, children and adolescent exposed to higher levels of interparental conflict reported: 1) lower social SR, which, in turn, were associated with lower levels of externalizing problems reported by their homeroom teachers; and 2) lower opposition SR, which, subsequently were associated with higher levels of externalizing behaviour. Both total and direct effects of interparental conflict on internalizing and externalizing behaviour were not significant. Thus, results revealed full indirect only effects of interparental conflict on homeroom teachers' reports of children's and adolescents' psychosocial functioning in terms of internalizing and externalizing behaviour.

2. The mediating role of children's and adolescent' self-representations in associations between maltreatment experiences and internalizing and externalizing behaviour

2.1. Methodology

2.1.1. Measures

a) Maltreatment

Children's and adolescents' maltreatment experiences were measured through the Maltreatment Severity Questionnaire (MSQ; Calheiros, 2006; Calheiros et al, 2017), described in page 126.

b) Self-representations

Self-representations were measured with the SRQA (Martins 2013; Silva et al., 2016), consisting of 18 attributes (10 positive - e.g., happy, intelligent; and 8 negative - e.g., sad, lazy), as described in page 64.

c) Internalizing and Externalizing Behaviour

Parents completed the internalization and externalization scales of the Child Behaviour Checklist (CBCL, Achenbach & Rescorla, 2001; Achenbach et al., 2014), a scale designed to assess behaviour problems and social competence among children and

adolescents. The internalizing factor reflects the more self-directed behaviour problems, including depression, anxiety, withdrawal, and somatic complaints. The externalizing score reflects other-directed behaviours: the opposition and aggressive behaviour subscales. The items are scored by the parents on a scale of 0 (*not true for child*) to 2 (*very often true for the child*). In this study, internal reliability was excellent for the externalizing scale (α =.95) and good for the internalizing scale (α =.82) (Kline 2000). Evidence for the validity of the CBCL has been provided by a large amount of studies developed in several countries (Achenbach et al. 2008). Namely, different kinds of analysis (e.g., covariance, multiple regressions) have shown that scores on the internalization and externalization CBCL scales are significantly higher for clinically referred than non-referred children, after controlling for several demographic variables (e.g., age, gender, socio-economic status) both in US and European samples (Achenbach et al. 2008). Also, significant interrelations have been consistently found between corresponding scales of the CBCL scales and Conners' (1997) instruments (Achenbach & Rescorla 2001).

2.1.2. Data analysis

Initial analyses included missing value analysis, descriptive statistics and bivariate correlations among the predictor, criterion and mediator variables, and the co-variates as well. Prior to conducting descriptive, correlation and model test analyses, missing data within the Internalizing Problems and Externalizing Problems scales from the CBCL were analysed, using IBM SPSS v20 (IBM Corp., 2011). Missing value analyses had already been conducted for the maltreatment and SR measures, as reported in the previous chapter (see page 139). The amount of isolated missing data within the Internalizing and Externalizing Problems scales, ranged, respectively, from 0 to .9% and 0 to .9%, which is considered small (Widaman, 2006). Missing estimations were run using an estimating method [Internalizing behaviour: Little's MCAR test chi-square = 263.99, DF = 196, p = .001, normed chi-square = 1.35 (so <2); Externalizing behaviour: Little's MCAR test chi-square = 388.58, DF = 242, p < .001, normed chi-square = 1.61 (so <2)] that led to the conclusion that isolated missing values were most likely at random (MAR) (Ullman, 2001). Therefore, for each measure, the expectation maximization algorithm was used to impute missing data using all information available from observations on the other variables. The maltreatment dimensions (i.e., physical and psychological abuse, physical neglect and psychological neglect) as well as children's and adolescents' SR domains were composite variables, computed by averaging their respective items. Following the ASEBA (Achenbach & Rescorla, 2001; Achenbach et al., 2014) manual instructions, mothers/fathers' reports of internalizing and externalizing behaviour were composites derived by summing up the items comprised in each scale.

a) LGSH mediation analyses

Preceding the test of the proposed mediation model, another missing value analysis conducted with all model variables revealed that missing data were completely at random (MCAR; Little's MCAR test chi-square = 32.69, DF = 32, p = .433). Therefore, missing data were dealt with using Full Information Maximum Likelihood (FIML), using *MPlus* 7.1. (Muthén & Muthén, 1998–2012). The proposed mediation model was then tested using path analysis, performed with *MPlus* 7.1. (Muthén & Muthén, 1998–2012), with bootstrap estimation. A multimediator path analysis was conducted to test indirect effects of maltreatment experiences (i.e., physical and psychological abuse, physical neglect and psychological neglect) on children and adolescents' internalizing and externalizing behaviour, through their domain-specific SR.

Given that previous studies have shown significant sex differences in self-representations (see Harter, 2015), child/adolescent sex was included in this model as a covariate. Similar to the previous model test, based on theoretical assumptions and on the correlation analysis results, the disturbances of the SR dimensions shown to be significantly correlated and of the psychosocial functioning dimensions were allowed correlate in the model. Once again, we used a bootstrap approach to test the mediation hypothesis (Shrout & Bolger, 2002), using a nonparametric resampling method (bias-corrected bootstrap) (Preacher & Hayes, 2004) with 10000 resamples drawn with replacement from the original sample to derive the 95% confidence interval for the indirect effect. Similar to all model test analyses reported in this thesis, the following fit indexes and criteria were used to evaluate model fit: the relative χ^2 index (χ^2/df) values ≤ 2 (Arbuckle, 2011), the comparative fit index (CFI) > .95, the root mean square error of approximation (RMSEA) < .05 and the standardized root mean residual (SRMR) < .08 suggest a good fit (Hu & Bentler, 1999; Schreiber et al., 2006).

b) Moderated mediation analyses

Finally, to examine the moderating role of children's and adolescents' age in the mediational pathways between and among mothers' actual appraisals through mothers' reflected appraisals, two moderated multiple mediator models were tested, one for each outcome variable (i.e., internalizing and externalizing behaviour). Our goal was to statistically test the conditional direct and indirect effects of children's and adolescents' maltreatment experiences (evaluated by their caseworkers) on their internalizing and externalizing behaviour (evaluated by their mother/father) via their domain-specific self-representations, at different age levels. Following recommendations by Hayes (2015) and Preacher, Rucker, and Hayes (2007) these analyses were conducted using a non-parametric method (bootstrap), through PROCESS macro for SPSS version 23 (IBM Corporation, New York, USA) developed by Hayes (2013), given that the bootstrap method is considered as an accurate method to obtain confidence intervals in comparison to other standard methods, and is assumption-free concerning the sample distribution.

To analyse children's and adolescents' age as first and second stage moderator (i.e., between predictor and mediators and between mediators and criterion variables) and as a moderator of the direct effect of the predictor on the criterion variables, we specified Model 59 in PROCESS. So, for each outcome variable (i.e., internalizing and externalizing behaviour), a moderated multimediator model was tested, with children's and adolescents' age specified as a moderator of all model pathways. These analyses provided tests of significance and confidence intervals for the conditional direct and indirect effects, the latter based on a bootstrap confidence interval. Given that age is a continuous variable, and that the index of moderated mediation is provided for model 59 only if the moderator is dichotomous, in our moderated mediation models, the function relating the indirect effect to the moderator is not a line and the method described in Hayes (2015) cannot be used (Hayes, 2016). Each analysis utilized 10000 bootstrap re-samples, and significance was determined based on 95% bias-corrected confidence intervals (i.e., when the CI did not contain zero, the parameter was interpreted as significant) (Byrne 2010; Hayes & Preacher 2010; Kline 2005). Following the analytical options of the multimediator path analysis model, child/adolescent sex was included as a covariate. As recommended by Hayes (2013), the unstandardized estimates were reported.

2.2. Results

2.2.1. Descriptive statistics and correlations

The means, standard deviations, and correlations among the variables included in the model are presented in Table 12. Significant positive correlations were found between the three maltreatment dimensions (physical neglect, physical and psychological abuse, and psychological neglect). Case workers' reports of physical neglect were also significantly negatively correlated with intelligence self-representations (SR), although this correlation was very weak. Physical and psychological abuse was significantly but weakly negatively correlated with social SR and positively though also weakly correlated with externalizing behaviour reported by the mother/father. Psychological neglect was significantly negatively correlated with social, physical appearance and intelligence SR, and positively correlated with mothers/fathers' reports of externalizing behaviour. Significant positive correlations were observed among all SR domains, except for the nonsignificant correlation between emotional and intelligence SR. Regarding the correlations between the SR dimensions and psychosocial functioning dimensions, instrumental, emotional and opposition SR were significantly negatively correlated with both internalizing and externalizing behaviour. A significant, although low, negative correlation was also found between intelligence SR and internalizing behaviour. Finally, children's and adolescent' age was significantly positively correlated with psychological neglect and internalizing behaviour, but significantly negatively correlated with most SR domains, the stronger correlation being with opposition SR.

2.2.2. Mean differences on children's and adolescents' sex

The criterion variables were analysed considering children's and adolescents' sex (the results of the analysis of potential sex differences in the predictor and mediator variables were reported in the preceding chapter). Results revealed no significant differences between girls and boys in children's and adolescents' internalizing or externalizing behaviour (cf. Appendix C, Table 1).

Table 12.

Descriptive statistics and bivariate correlations among the model variables (N=203)

	М	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	12.61	2.49											
2. Physical Neglect	1.62	0.75	.13										
3. Abuse	1.82	0.98	.02	.24**									
4. Psychological Neglect	2.47	1.09	.31***	.70***	.37***								
5. Instrumental SR	3.77	0.80	18*	07	-11	12							
6. Social SR	4.35	0.65	15*	12	-23**	19 [*]	.42***						
7. Emotional SR	3.96	0.89	10	.02	11	13	.26***	.15*					
8. Physical appear. SR	4.08	1.05	34***	12	01	17*	.34***	.28***	.16*				
9. Intelligence SR	3.74	0.85	24**	17*	.04	20**	.35***	.32***	.12	.27***			
10. Opposition SR	2.86	1.19	48***	.04	.04	13	.40***	.19**	.35***	.29***	.26***		
11. Internalizing behaviour	8.41	5.18	.15*	03	.04	.00	24**	04	20**	10	17*	22**	
12. Externalizing behaviour	11.47	9.35	.10	02	.17*	.19*	29***	02	15*	.10	07	30***	.46***

Note. * p < .05 ** p < .01 *** p < .001. SR = Self-representations, M = Mean, SD = Standard deviation.

2.2.3. Mediation model

As can be seen in Figure 8, a multi mediator path analysis model was estimated examining children's and adolescents' instrumental, social, emotional, intelligence, physical appearance and opposition SR as intervening mechanisms in associations between case workers reports of child/adolescent maltreatment experiences (i.e., abuse, physical neglect, and psychological neglect) and the mother/father's reports of internalizing and externalizing behaviour, as perceived by their mother or father. The model presented a very good fit to the data χ^2 (7) = 4.43, p = .49; χ^2/df = .89; CFI = 1.00; RMSEA = .00, 90% CI [.00 to .09]; SRMR = .02). Figure 6 depicts the unstandardized bootstrap parameter estimates of the path analysis model. After controlling for the potential effects of children's and adolescents' sex, results revealed significant indirect effects of: 1) physical and psychological abuse on externalizing behaviour through social SR social (B = -.03, 95% CI [-.859, -.003]); 2) physical neglect on externalizing behaviour, through physical appearance (B = -.45, 95% CI [-1.171, -.013]) and opposition (B = .73, 95% CI [.208, 1.590]) SR.

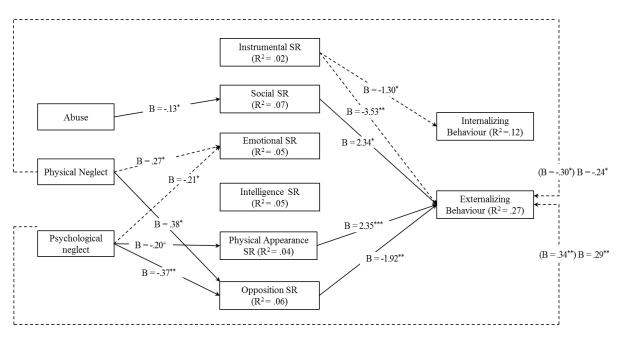


Figure 8 – Model examining the mediating role of children's and adolescents SR in associations between maltreatment experiences and their internalizing and externalizing behaviour as perceived by their parents. Arrows in solid refer to significant indirect effects. Beta coefficients in brackets refer to the total effect of Physical Neglect and Psychological Neglect on Externalizing Behaviour. For ease of interpretation, only significant effects are represented. SR = Self-representations.

p < 0.05 *p < 0.01 *p < 0.001

In other words, children and adolescents with higher levels of physical and psychological abuse experiences (as evaluated by their caseworkers) reported lower social SR, which, in turn, were associated with lower levels of externalizing behaviour, as perceived by their mother/father. Children and adolescents with higher levels of physical neglect (evaluated by their caseworkers) reported higher opposition SR, which were subsequently associated with lower levels of externalizing behaviour. Children and adolescents with higher levels of psychological neglect (evaluated by their caseworkers) reported: 1) lower physical appearance SR, which, in turn, were associated with lower levels of externalizing behaviour, and 2) lower opposition SR, which were subsequently associated with higher levels of externalizing behaviour. Both total and direct effects of physical neglect and psychological neglect on externalizing behaviour were significant, although the direct effects were somewhat lower. Thus, results revealed partial mediation of: 1) social SR in associations between physical and psychological abuse and externalizing behaviour; 2) opposition SR in associations between physical neglect and externalizing behaviour; and 3) physical appearance and opposition SR in associations between psychological neglect and externalizing behaviour. The model test results did not reveal any indirect effects of the maltreatment dimensions on internalizing behaviour through children's and adolescents' SR.

2.2.4. The moderating role of children's and adolescents' age

As shown in Table 13, results of the moderated mediation model with internalizing behaviour as the criterion variable revealed a significant and positive indirect effect of physical and psychological abuse on children's and adolescents' internalizing behaviour, through their instrumental SR, only for the older children/adolescents. That is, only for older children/adolescents, higher levels of physical and psychological abuse (as evaluated by the caseworkers) were associated with lower instrumental SR, which in turn were associated with higher levels of internalizing behaviour (as evaluated by their mother).

Table 13. Unstandardized indirect effects of physical and psychological abuse on children's and adolescents' internalizing behaviour through instrumental SR, conditional on their age.

	Indirect effect					
Value of the moderator (age)	Abuse → Instrumental SR → Internalizing behaviour					
	Coeff. (Boot SE)	95% CI				
- 1 sd (10.1037)	012 (.108)	(346, .133)				
Mean (12.5776)	.157 (.137)	(006, .598)				
+ 1 sd (15.0516)	.528 (.368)	(.025, 1.573)				

Regarding the moderated mediation model with externalizing behaviour as the criterion variable, the results also showed a significant and positive indirect effect of physical and psychological abuse on children's and adolescents' externalizing behaviour, through their instrumental SR, only for the older children/adolescents. That is, only for older children/adolescents, higher levels of physical and psychological abuse (as evaluated by the caseworkers) were associated with lower instrumental SR, which in turn were associated with higher levels of externalizing behaviour (Table 14).

Table 14. Unstandardized indirect effects of physical and psychological abuse on children's and adolescents' externalizing behaviour through instrumental SR, conditional on their age.

	Indirect effect					
Value of the moderator (age)	Abuse → Instrumental SR → Externalizing behaviour					
	Coeff. (Boot SE)	95% CI				
- 1 sd (10.1037)	030 (.241)	(788, .326)				
Mean (12.5776)	.347 (.267)	(019, 1.102)				
+ 1 sd (15.0516)	1.111 (.612)	(.196, 2.752)				

The results also showed that the negative indirect effect of physical and psychological abuse on internalizing behaviour through social SR was only significant for the children and adolescent at the mean age level. That is, only for these children/adolescents, higher levels of physical and psychological abuse (as evaluated by the caseworkers) were associated with lower social SR, which in turn were associated with lower levels of externalizing behaviour (Table 15).

Table 15. Unstandardized indirect effects of physical and psychological abuse on children's and adolescents' externalizing behaviour, through social SR, conditional on their age.

	Indirect effect					
Value of the moderator (age)	Psychological neglect → Externalizing behaviour					
	Coeff. (Boot SE)	95% CI				
- 1 sd (10.1037)	328 (.337)	(-1.451, .062)				
Mean (12.5776)	453 (.254)	(-1.204,094)				
+ 1 sd (15.0516)	597 (.466)	(-1.060, .044)				

As for the conditional direct effects, results of these analyses showed that the significant positive effect of psychological neglect on children's and adolescents' externalizing behaviour was only significant at mean and higher age levels. That is, experiences of psychological neglect were associated with higher levels of externalizing problems only for children and adolescents with mean and higher age levels, but not for the younger children (Table 16).

Table 16. Unstandardized direct effects of psychological neglect on children's and adolescents' externalizing behaviour, conditional on their age.

	Indirect effect					
Value of the moderator (age)	Abuse → Social SR → Externalizing behaviour					
	Coeff. (Boot SE)	95% CI				
- 1 sd (10.1037)	2.298 (1.297)	(-1.451, .062)				
Mean (12.5776)	2.631 (.962)	(.729, 4.532)				
+ 1 sd (15.0516)	2.963 (1.086)	(.817, 5.110)				

3. Discussion

The results presented in this chapter refer to the analysis of the role of children's and adolescents' domain-specific self-representations in the links between the two kinds of adverse family experiences considered in this thesis (i.e., interparental conflict and maltreatment experiences) and their psychosocial functioning. So, children's and adolescents' self-representations were analysed as mediators in associations between: 1) exposure to interparental conflict and their internalizing and externalizing behaviour as perceived by their

homeroom teachers, as part of Study 1; and 2) maltreatment (i.e., abuse and neglect) experiences and their internalizing and externalizing behaviour, as perceived by their mother/father, as part of Study 2. In our studies, we aimed to go beyond documenting effects of those adverse family experiences on children's and adolescents' self-representations and of self-representations on psychosocial functioning, to predict that those experiences are linked to children's and adolescents' psychosocial functioning through their domain-specific self-representations. Indeed, considering the self – and more specifically domain-specific self-representations – as a tool for meaning making and regulating behaviour (Harter, 1990, 2015; Oyserman et al., 2012), it could be expected that different domains of children's and adolescents' self-representations could function as explaining mechanisms of associations between characteristics of the family relationship context and their psychosocial functioning.

The results reported in this chapter revealed that, in both studies, the general premise that self-representations matter for behaviour was supported (Harter, 1990, 2015; Oyserman et al., 2012), and are in line with previous studies showing associations between domains of self-concept and several adjustment outcomes in children and adolescents. Furthermore, the results of both models also support the assumption that self-representations not only are associated with psychosocial functioning, but also seem to play an intervening role in how interpersonal experiences with significant others are associated to their adjustment.

3.1. Domain-specific self-representations as mediators of associations between exposure to interparental conflict and psychosocial functioning

In the Study 1 model, the results showed that, as expected, and as already shown in the results of the first part of this study (see Chapter III), higher levels of interparental conflict were associated with more negative self-representations in almost all domains. In addition, the association between children's and adolescents' exposure to interparental conflict and their internalizing and externalizing behaviour, as reported by their homeroom teachers, were only mediated effects. That is, both total and direct effects of interparental conflict on children's and adolescents' behaviour were non-significant.

More specifically, the results revealed that the relation between interparental conflict and teachers' reports of children's and adolescents' internalizing behaviour was mediated by instrumental, social and opposition self-representations. Undermined instrumental selfrepresentations in face of higher levels of interparental conflict were associated with higher levels of internalizing behaviour. That is, children and adolescents who reported higher levels of exposure to destructive interparental conflict were more likely to view themselves as, for example, less responsible, organized and well-behaved, and, in turn, to display more internalizing behaviours. A different pattern of results was observed regarding the role of social and opposition self-representations: undermined social self-representations in face of higher levels of interparental conflict were associated with lower levels of internalizing behaviour. That is, children and adolescents who reported higher levels of exposure to destructive interparental conflict were more likely to view themselves as less friendly, helpful and nice, as well as grouchier and more stubborn, but, in turn, less likely to display internalizing behaviours.

Regarding the associations between interparental conflict and teachers' reports of children's and adolescents' externalizing behaviour, the results revealed that this association was mediated by social and opposition self-representations. Specifically, undermined opposition self-representations in face of higher levels of interparental conflict were associated with higher levels of externalizing behaviour. So, children and adolescents who reported higher levels of exposure to destructive interparental conflict were more likely to view themselves as grouchier and more stubborn, and, in turn, to display more externalizing behaviours. However, undermined social self-representations in face of higher levels of interparental conflict were associated with lower levels of externalizing behaviour. That is, children and adolescents who reported higher levels of exposure to destructive interparental conflict were more likely to view themselves as less friendly, helpful and nice, but, in turn, less likely to display externalizing behaviours.

The interpretation of the results regarding the role of instrumental and opposition self-representations is quite straightforward. Indeed, given the research literature suggesting that family experiences resulting in negative self-representations can put children and adolescents at greater risk for problematic behaviours (e.g., Harter, 2006a), it was expectable that undermined self-representations in the context of interparental conflict would be associated with higher levels of problematic behaviours. Especially considering self-representation domains with such an active component and related to overt behaviour, such as the instrumental and opposition domains. Regarding the role of social self-representations in the association between interparental conflict and both internalizing and externalizing behaviour, at first sight it could be seen as less expectable. Indeed, one would expect that undermined

social self-representations would be associated with higher levels of those behaviours. However, these findings can be interpreted in the light of three bodies of literature.

On the one hand, as outlined in the theoretical background of the present chapter, there is a considerable body of research focused on the issue of false self behaviour displays – that is acting in ways that do not reflect one's true self (Harter et al., 1996; Steinberg & Moris, 2001). This is considered a normative liability of the self-system, which starts to emerge around 8-10 years old, as children start to evaluate themselves more realistically and to display more negative self-representations and self-esteem (e.g., Harter, 2015; Harter, Marold et al., 1996; Steinberg & Moris, 2001). Starting in middle to late childhood until middle to late adolescence, caregivers who make their support and approval conditional upon the child or adolescent meeting very high, unrealistic or unattainable expectations (i.e., conditional support) put their children at risk of unhealthy levels of false-self behaviour (Harter, 2015). Conditional support from parents specifies the behavioural contingencies through which children and adolescents could please them. Thus, children and adolescents who experience high levels of such conditional support are more likely to engage in false self behaviours. That is, they may learn to suppress what they feel are true self-attributes, in an attempt to gather the needed approval, support, and validation from parental caregivers and other significant others from their social network (Harter et al., 1996), a process that can first be observed in middle to late childhood (Harter, 2015).

Parents' inability to resolve their own disputes effectively in a way that preserves family harmony tackles children's confidence in the ability of the family to act as a source of security (Ackerman et al., 1999). When the family structure fails to meet children's and adolescents' needs for security, despite its toll on their self-representations, they may engage in more appropriate behaviours as strategy to avoid further disturbing the family relationship climate, in an impulse to protect the family against the possibilities of breakdown (Goldner & Berenshtein-Dagan, 2016). As mentioned before, children and adolescents in high-conflict homes energize their psychological resources so that they can cope efficiently with the threat and the consequent emotional arousal (Forman & Davies, 2005). Such strategies fall within the scope of false self behaviour, since it involves a manipulation of how the self is presented to the social world. According to the clinical literature, false-self behaviour has its origins in early childhood, within the family context (Bleiberg, 1984; Winnicott, 1965). Experiencing parents as inaccessible, frightening, or inconsistent may prompt children and adolescents

experience to attempt to alter reality in order obtain protection and support from them (Cummings & Davies, 1996; Davies & Forman, 2002). This threat to children's and adolescent basic emotional needs may lead the self to split into false-self and true-self constructions causing false self behaviours to occur, as an attempt to preserve the structure of their family system (Goldner & Berenshtein-Dagan 2016).

On the other hand, the positive association between social self-representations and internalizing and externalizing behaviour can also be framed in the research literature about self-representation overestimation (e.g., Baumeister et al., 1996; David & Kistner, 2000). While overestimation may, on the one hand, serve as a protective factor and be essential for adaptive psychosocial functioning and mental health (Harter, 2015), for some people it can be an indicator of emotional or social difficulties. For example, several studies have shown that children who overestimate their social attributes (e.g., social acceptance) have greater emotional and behavioural problems (Dubois & Silverthorn, 2004) or are more aggressive (Brendgen, Vitaro, Turgeon, Poulin, & Wanner, 2004; David & Kistner, 2000; Hughes et al., 1997; Hymel et al., 1993; Patterson et al., 1990). Therefore, as Baumeister and colleagues (1996) suggested, positively biased self-concepts may have a "dark side". In an interdisciplinary review of the aggression literature, Baumeister and colleagues (1996) challenged the view that aggression is associated with negative self-concepts, proposing instead that it is individuals with very positive self-views who are prone to be aggressive. Theoretically, positive bias in self-representations has the potential to contribute to problematic adjustment through several mechanisms. These include for example poor social skills due to overconfidence and limited self-awareness, and negative reactions to perceived threats to very positive self-perceptions (Baumeister, Bushman, & Campbell, 2000; Lambe, Hamilton-Giachritsis, Garner, & Walker, 2016). It may also decrease access to social support that can heighten exposure to stress, thereby further increasing risk for adjustment problems (David & Kistner, 2000).

The fact that this "dark side" was found only for social self-representations may be related with a set of developmental processes starting at early adolescence. As outlined in the theoretical background of this chapter, it is possible that social self-representations may be more prone to be overestimated in adolescence due to the high saliency of the attributes that influence one's social appeal (Harter, 2015). Indeed, children's and adolescents' self-representations of their social acceptance have been found to vary from fairly realistic to

extreme overestimates of their actual acceptance (David, 1998; Hymel et al., 1993; Patterson et al., 1990).

In early adolescence, social awareness increases dramatically, leading to a greater self-awareness of how one's attributes are viewed by others. For young adolescents, interpersonal attributes and social skills that influence one's social appeal are particularly salient (Damon & Hart, 1998). The positive association between social self-representations and internalizing behaviour may be particularly related to this developmental characteristic of early to middle adolescence. As Selman (2003) points out, young adolescents are often anxiously trying to understand what others think of them in order to make decisions about which perspectives to internalize as defining features of the self. This preoccupation and uncertainty contributes to intense introspection or self-reflection, and, for some adolescents, to a rumination tendency. Introspection can represent shared reflection within a close relationship that can border on co-rumination. Although co-rumination may strengthen interpersonal bonds, it can also lead to confusion and depression. Indeed, young adolescents who are overly preoccupied with the importance of the opinion of peers are also more likely to report being depressed (Harter, Stockr, & Robinson, 1996; Harter, 2015). It is possible, then, that children and adolescents' who view themselves as nicer, friendlier and helpful are more likely to engage in co-rumination with close friends, and more likely to exhibit internalizing behaviours or symptoms.

A normative increase in children's and adolescents' preoccupation with the importance of the opinion of peers may also underlie the positive association between social self-representations and externalizing behaviour, especially considering that these behaviours were assessed by the homeroom teachers, who contact with these children and adolescents mainly, or exclusively, in the school context. Following the transition from middle school to junior high school, teachers place considerably more emphasis on comparisons with others (e.g., public posting of grades, ability grouping) (Eccles & Roeser, 2009). At a time when children/young adolescents are so self-conscious, the school system amplifies the salience of social comparison, and the criteria for social acceptance become clearly communicated by peers. In this context, children and adolescents are likely to feel vulnerable and, thus, motivated to enhance, or at least protect their image. To that end, they may attempt to hold on to characteristics that enhance their acceptance by peers, by being chatty, cheerful, and funny (Harter, 2015). In a classroom setting, such behaviours, though normative, may be perceived

by their homeroom teachers as more disturbing. Indeed, in such a setting, where respect for authority and proper behaviour are so valued, externalizing behaviours are especially salient and especially likely to be detected by the teachers, who are typically more sensitive to disruptive behaviours that disturb the working and learning climate in the classroom (Abikoff et al. 1993; Larsson and Drugli 2011; Youngstrom et al., 2000). It is important to note that, in this study, the levels of externalizing behaviours (as well as of internalizing behaviours) are quite low and cannot be considered problem behaviour. In fact, displays of externalizing behaviour are quite normative in this age range and can even be considered adaptive, in that it may reflect higher levels of self-confidence to express one's opinion and interact with peers. Conversely, it is also possible that worse social self-representations, that is, viewing oneself as, for example, less friendly, may inhibit such normative displays of externalizing behaviour.

3.2. Domain-specific self-representations as mediators of associations between maltreatment experiences and psychosocial functioning

Concerning the results of the model from Study 2, as also expected, higher levels of maltreatment experiences, as reported by the case workers, were associated with more negative self-representations in almost all domains. As for the associations between maltreatment experiences and internalizing and externalizing behaviours, the pattern of effects differed between the two psychosocial functioning dimensions. While none of the maltreatment dimensions were significantly associated with children's and adolescents' internalizing behaviour, all maltreatment dimensions were associated with externalizing behaviour. These associations differed across the different maltreatment dimensions. Interestingly the association between physical and psychological abuse experiences and externalizing behaviour was only mediated. That is, there was no total (i.e., without mediator or intervening mechanism) association between these two phenomena. This lack of total association may be related to the fact that, the levels of physical and psychological abuse in the present sample were low to moderate. On the other hand, physical neglect and psychological neglect were both directly and indirectly associated with externalizing behaviour.

Curiously, the direct association between neglect experiences and externalizing behaviour differed between the two types of neglect experiences, that is, between physical and psychological neglect. While psychological neglect was associated with higher levels of

externalizing behaviour, physical neglect was associated with lower levels of that behaviour. These divergent findings can, however, be framed in the existing literature. Indeed, emotional neglect of children, unresponsive or rejecting parenting, lack of parental availability for involvement in, and supervision of, child activities have been associated with higher levels of externalizing symptoms such as aggressive, hostile, oppositional, and delinquent behaviour (Barber, 1996; Rothbaum & Weisz, 1994; Steinberg et al., 1994). As for the negative association between physical neglect and externalizing behaviour, a possible interpretation may be that children and adolescents whose basic physical needs are not appropriately met may be more passive and not as prone to display externalizing behaviour. This is in line with research literature describing neglected children as passive and apathetic (e.g., Prino & Peyrot, 1994).

The lack of significant associations between the maltreatment dimensions and children's and adolescents' internalizing behaviour is not surprising in the context of the present sample. Indeed, according to the scientific literature, in the general population, it is well established that the level of agreement between the information from parents and children/adolescents using the ASEBA instruments (CBCL and YSR) shows low to moderate levels of concordance (Achenbach, McConaughy, & Howell, 1987). Adolescents normally inform about more problematic and clinical behaviour than parents, especially in internalizing problems (e.g., Achenbach & Rescorla, 2001; Begovac, Rudan, Skocic, & Filipovic, 2004; Rescorla et al., 2013; Vierhaus & Lohaus, 2008). This discrepancy may be even more pronounced in the context of child/adolescent maltreatment, given that maltreating mothers are less accurate in recognizing emotions in their children, and thus less sensitive to their children's displays of internalizing behaviours (Wagner et al., 2015).

Three patterns of indirect effects were found: two of indirect negative effects of maltreatment dimensions on externalizing behaviour, and one of positive indirect effect on externalizing behaviour. A first pattern was observed in the indirect effects of abuse and psychological neglect on externalizing behaviour. More specifically, the results revealed that abuse experiences were associated with lower levels of externalizing behaviour through social self-representations. Children and adolescents with higher levels of physical and psychological abuse experiences reported more negative social self-representations, and, in turn, lower levels of externalizing behaviour. Similarly, psychological neglect was associated with lower levels of externalizing behaviour through physical appearance self-

representations: children and adolescents with higher levels of psychological neglect reported lower physical appearance self-representations and, in turn, lower levels of externalizing behaviour. A second pattern, inverse to the previous one, was observed in the negative indirect effect of physical neglect on externalizing behaviour, through opposition self-representations: children and adolescents with higher levels of physical neglect reported more positive opposition self-representations, which were subsequently associated with lower levels of externalizing behaviour. Finally, a third pattern regards the association of psychological neglect with higher levels of externalizing behaviour through opposition self-representations: children and adolescents with higher levels of psychological neglect reported more negative opposition self-representations, which were subsequently associated with higher levels of externalizing behaviour.

Although presenting some interesting differences in relation to the Study 1 model, the findings of this model test point, overall, in the same direction, especially regarding the associations between maltreatment experiences and externalizing behaviour. Just as in Study 1, some findings seem more linearly interpretable, namely regarding the role of opposition self-representations. Indeed, as suggested by the literature, unresponsive caregivers, lacking in emotional support, are more likely to reinforce their children's negative self-representations (e.g., Harter, 1998a, 2015). Particularly considering the opposition self-representations, it was expectable that, for children and adolescents' who represent themselves as grouchier and more stubborn, their mothers would be more likely to report higher levels of externalizing behaviour displays.

However, the role of social and physical appearance self-representations could, at first, seem contrary to what was theoretically expected. Indeed, one would expect that more negative self-representations in any domain would be associated with higher levels of internalizing and/or externalizing behaviour. However, as some of the findings that emerged in the model from Study 1, these less expected results can also be framed in the literature about the relation between adverse family experiences and displays of false-self behaviour, even more in this model, considering that this study was developed with children and adolescents from family contexts, and that their psychosocial functioning was reported by their parents (mostly their mothers). Indeed, children and adolescents who are victim of abusive and neglectful parenting practices are at an even greater risk for suppressing their true self and for displaying false-self behaviour (Harter, 1998a, 2015). Such parenting

practices, reflecting conditional support, lack of validation, threats of harm, coercion, and enforced compliance all impel the true self to submerge, giving place to a socially entrenched self (Bleiberg, 1984; Stern, 1985; Sullivan, 1953; Winnicott, 1965). Children and adolescents not only feel that significant others do not value their true self, but they come to devalue it themselves. The more they feel this way, the more likely they are to display false self behaviour (Harter et al., 1996). In the context of higher levels of physical abuse and psychological neglect from parents, the high levels of parental conditional support may lead children and adolescents to learn to engage in behaviours less attuned with their attributes, in an effort to gain the needed approval, support and validation from their parents (Harter, 2015). In line with this idea, the findings of the recent study of Goldner and Berenshtein-Dagan (2016) suggested that, when early and middle adolescents' psychological needs are addressed, they feel the security to behave in accordance with their sense of self, especially with their parents. By contrast, when their basic emotional needs are not provided for, their self may become heteronomous and split into false-self and true-self constructions.

The fact that this pattern of relationships was observed only for the role of social and physical appearance self-representations is in line with the notion, increasingly emphasised in the literature, that self-representations may develop unevenly across domains (Burnett, 1996; Cole, Maxwell, et al., 2001; Harter, 2015; Shapka & Keating, 2005; Salley et al., 2010). Therefore, it is likely that the associations of self-representations with psychosocial functioning dimensions can vary across different self-representation domains. Specifically, in the parent-child relationship context, research has shown that parents tend to emphasize social relations, respect for authority, and proper behaviour (e.g., Carlson & Harwood, 2003; Delgado-Gaitan, 1994; Leyendecker, Harwood, Lamb, & Scholmerich, 2002), especially in more collectivistic cultures such as the Portuguese. In addition, interpersonal and physical appearance attributes are especially salient from late childhood/early adolescence onwards (Damon & Hart, 1998), given the marked increase in social awareness and scrutiny of physical appearance features (Vartanian, 2000). Indeed, as shown in the results of the moderated analysis, this role of social self-representations on internalizing behaviour was only significant for the children and adolescent at the mean age level, that is, early adolescents.

Social and physical appearance self-representations are the most strongly correlated to global self-esteem (Harter, 1990, 2000). These developmental characteristics may also

account for the distinction between the role of social and physical appearance self-representations and the role of opposition self-presentations, in associations between maltreatment experiences and externalizing behaviour. Given the saliency of these self-representation domains, it is possible that undermined social and physical appearance self-representations associated to abuse and/or psychological neglect are more likely to stimulate attempts to engage in more appropriate (i.e., less externalizing) behaviours with the aim of attaining more support from parents and satisfy their emotional needs (Goldner & Berenshtein-Dagan, 2016; Harter, 2015).

The moderating role of children's and adolescents' age

Finally, results also revealed a significant mediating role of children's and adolescents' instrumental self-representations in associations between physical and psychological abuse and both internalizing and externalizing behaviour, moderated by age. More specifically, only for the older adolescents, higher levels of physical and psychological abuse (as evaluated by the caseworkers) were associated with lower instrumental SR, which in turn were associated with higher levels of both internalizing and externalizing behaviour. The integration of this finding in the research literature is quite straightforward. Indeed, as outlined in the theoretical framework of this chapter, abusive parents, in particular, often set unrealistic performance expectations that, because they are unattainable, cause feelings of personal failure in their children (Harter, 2015). Children and adolescents subjected to higher levels of physical and psychological abuse may, thus, come to view themselves as profoundly defective in the instrumental domain, that is, as less responsible, organized, well-behaved and hard-working, and to have an impaired sense of overall self-worth as well (e.g., Fischer & Ayoub, 1994; Harter, 1998a). In turn, they may be more likely to display internalizing behaviour, in line with findings of previous research showing a robust relationship between negative self-representations and depression (e.g., Cole, Jacquez, et al., 2001). This exacerbating role of age is in line with research showing that self-representations become more negative as age increases (e.g., Salley et al., 2010) and that older children/adolescents tend to present higher levels of internalizing difficulties (Bastiaanssen, Delsing, Kroes, Engels & Veerman, 2014; Erol, Simsek, & Munir, 2010), such as depression and anxiety symptoms.

3.3. Limitations and strengths

Both studies have some limitations that call for caution in interpreting the results. First, the effect sizes of the effects found in the current study were not very high, suggesting that other characteristics such as attachment security, emotional regulation, and life circumstances could contribute to account for the findings (Goldner & Berenshtein-Dagan, 2016). Also, in interpreting the findings that bear upon both models, we have inferred that the maltreatment experiences precede self-representations and internalizing and externalizing behavioural manifestations. However, it should be noted that the data upon which the model was tested are cross-sectional, that is, collected at one point in time, and therefore does not allow us to make causal inferences based on the results. Future work should employ longitudinal designs in which the directionality of effects can be tested explicitly. In addition, the data relied solely on self-report measures. Thus, future studies should expand the procedures beyond self-report methodology, particularly regarding the psychosocial functioning variables. Although it can well be argued that parents' reports of their children's behaviours are critical in order inform intervention strategies for parents and/or families, more objective measures would allow one to test the veracity of their perceptions, as well as to obtain more robust data regarding the associations between children's and adolescents' domain-specific self-representations and their internalizing and externalizing behaviour.

Despite these limitations, we consider that these studies make an important contribution to the research literature in this field, by being the first empirical contribute to the understanding of the role of children's and adolescents' domain-specific self-representations in associations between adverse family experiences and dimensions of their psychosocial functioning. In addition, an important methodological strength of these studies is that they are both multi-informant, given that the predictor, mediator, and criterion variables were assessed from different sources (in Study 1, children/adolescents and their homeroom teachers; and in Study 2, case workers, children/adolescents, and their mother/father). Therefore, the studies' measures were methodologically independent.

3.4. Concluding remarks

Taken together, findings of both studies support the mediating role of children's and adolescents' self-representations in the relation between adverse family experiences and their psychosocial functioning. In addition, the results obtained in the two studies, regarding the

role of children's and adolescents' self-representations in associations between adverse family experiences and their internalizing and externalizing behaviour, suggest that the self is not a passive recipient of information collected in interpersonal experiences; instead the self also plays an active, executive role in guiding behaviour and interpreting experiences (Baumeister, 1998; Carmichael et al., 2007). However, this role is complex and varies across different self-representation dimensions. This variability is in line with the notion, increasingly highlighted in the literature that self-perceptions may develop unevenly across domains (Burnett, 1996; Cole, Maxwell, et al., 2001; Harter, 2015; Shapka & Keating, 2005; Salley et al., 2010).

Additionally, as observed in the Study 2 model, the same self-representation dimension may play a different role depending on the type of maltreatment experiences considered. These discrepancies may be related to the context-based dynamic construction of self-representations which facilitates a sensitive attuning of behaviour to contextual affordances and constraints. Although often experienced as stable, self-representations are malleable and situation-sensitive (Markus & Kunda, 1986: Oyserman et al., 2012). So, the particular self-representations that come to mind in each interpersonal setting or situation is a dynamic product of that which is chronically accessible and what is situationally cued (Oyserman et al., 2012). Thus, it is possible that the self-representation domains evaluated in these studies would play a different role on behaviour, if analysed in the context of other interpersonal experiences. Indeed, when a given interpersonal context stimulates a specific self-representation or cluster of self-representations, this cued self-knowledge encompasses a general readiness to act and make sense of the world. This readiness depends on what the self-representations that were stimulated mean in that specific interpersonal context or experience. Therefore, the predictive power of a specific self-representation domain depends on the stability of the contexts that stimulate it. Considering that different types of adverse family experiences may arouse different aspects of self-knowledge, the link between selfrepresentations and behaviour may be opaque (Oyserman et al., 2012).

The unexpected association of more negative self-representations in the social and physical appearance domains and lower levels of internalizing and/or externalizing behaviours are also in line with the notion, shared by several theoretical models, that people act to increase felt similarity to a desired social identity, particularly when membership might feel threatened (e.g., Tajfel & Turner, 2004; Oyserman et al., 2012). Transferring this idea to

the family context, it is likely that children's and adolescents with higher levels of adverse family experiences feel less secure in their sense of belonging to the family unit, and attune their behaviour to somehow compensate for that insecurity.

To conclude, these findings raise interesting questions that could be addressed in future studies to better disentangle which factors may be underlying the associations found in these studies, and increase our understanding about the associations of different self-representation domains with psychosocial functioning in the context of adverse family experiences. This has several relevant practical implications, which will be discussed in the last chapter (i.e., Chapter VI - Conclusions).

CHAPTER VI

CONCLUSIONS

We began this thesis by outlining a set of core premises about the self, describing how different theories converge in the assumption that the self, self-concept, and self-representations are mental constructs, social products, and forces for action, which are felt as stable and yet malleable (Markus & Kunda, 1986; Oyserman et al., 2012). Bridging together the three facets of this broad conceptualization, the studies developed in this thesis focus on understanding the processes through which social experiences between and with close significant others (i.e., parents/caregivers) are associated with children's and adolescents' cognitive self-representations (or self-schemas), as well as the role of self-representations as potential mediators of the link between those experiences and their psychosocial functioning.

With this dissertation, we intended to contribute to the study of self-representations in late-childhood to middle-adolescence in the perspective of Social Psychology, integrating the relevant notions from Developmental Psychology, that are necessary to understand the processes of the construction and implications of self-representations in such a critical developmental period. This work illustrates how the study of children's and adolescents' selfrepresentations may benefit from the integration of both social and developmental psychology (e.g., Bennett & Sani, 2004; Durkin, 1995; Pomerantz & Newman, 2000). As explained in the first chapter, a thorough approach to the construction of the self requires a reference to both theoretical perspectives. By adopting a developmental perspective, these studies contributed to provide additional support to social psychology theories, by providing new perspectives on process-related issues. On the other hand, the integration of social psychology brought the emphasis on the processes and the importance assigned to social contexts, allowing a broader understanding of the developmental issues associated with children's and adolescents' self-construction. Another main theoretical contribution of integrating this work in the social psychology perspective to the research field about the selfconstruction in childhood and adolescence was the way self-concept was conceptualized and operationalized, that is, as a dynamic multidimensional system of specific and contextual self-representations (e.g., Markus & Wurf, 1987; Oosterwegel & Oppenheimer, 2002). Therefore, cognitive self-representations (i.e., the attributes that individuals use to describe themselves) were the central concept of the studies here described.

Our work was developed around two main themes: one regarding the social construction of self-representations in the context of specific characteristics of the family relationship system, and the other focused on the role of domain-specific self-representations

on dimensions of children's and adolescents' psychosocial functioning. The relevance of the study of the social construction of self-representations and their associations with psychosocial functioning in mid childhood through adolescence is unquestionable, given the several developmental changes that take place during these developmental phases and the strong implications of self-representations for one's behavioural adjustment and overall well-being (e.g., Harter, 2015). More than to summarize the conclusions that were presented throughout the preceding chapters, in this section we intend to integrate them in the main theoretical assumptions that guided this research, aiming an integrative discussion of the theoretical and practical implications of our findings. We integrate theoretical assumptions from developmental and social psychology, in an attempt to address a lack of integration of these fields in research focused on self-representations as social constructions with associations with behaviour. Indeed, individual and social dimensions should not be studied separately (Durkin, 1995), but instead integrated, in order to better explain and discuss the theoretical models hypothesized in our studies.

a) Adverse family experiences as matter for the social construction of domainspecific self-representations in late childhood to middle adolescence

Although there is a considerable body of research literature focused on the critical processes in the normative construction of the self, much less is known about important processes in the construction of the self in less than optimal family environments. However, being the construction of self-representations so highly dependent upon social interactions with significant others, the study of such processes must take into account the potential hazards associated with family environments, not only in the context of risky families, but in a normative context as well. Given the lack of process-oriented research about how adverse family experiences are linked to children's and adolescents' self-representations, the first general goal of this research project was to analyse the role of emotional, relational, and socio-cognitive processes in that associations. To that end, two studies were developed: one in a normative context, considering the adverse family experience of exposure to interparental conflict, and another developed with a sample of an endangered context, specifically with children and adolescents with maltreatment (i.e., abuse and neglect) experiences.

In the first study, we analysed the specific roles that processes emphasized by the emotional security theory play in understanding the associations between interparental conflict and children's and adolescents' self-representations. In the first model, several dimensions of adolescent emotional insecurity were analysed as potential mediators integrated within one global mediation model (e.g., emotional reactivity, internal representations, and behavioural regulation of exposure to interparental conflict). The second model consisted of the analysis of the mediating role of children's and adolescents' perceptions of their relationship with their mothers and with their fathers, in terms of support and negative interactions, in the association between their experiences with interparental conflict and their self-representations. This study extended previous research by examining the role of children's and adolescents' emotional insecurity, and perceived relationships with both their parents, in the relationship between interparental conflict and their domain specific self-representations, considering their specific cognitive content. Thus, it broadens the range of child and adolescent outcomes linked with interparental conflict in process-oriented research guided by the emotional security theory (EST; Cummings & Davies, 2010; Davies & Cummings, 1994).

Consistent with past model tests (for a review, see Rhoades, 2008), emotional insecurity was indicated as an explanatory mechanism, suggesting that children's and adolescents' responses in the context of interparental conflict have important implications for their self-representations. More specifically, interparental conflict was linked with several dimensions of emotional insecurity reactions (i.e., emotional reactivity, conflict spillover representations, withdrawal strategies, and constructive family representations), which in turn were linked to several self-representation domains of. These findings demonstrate an important role for these specific aspects of children's and adolescents' emotional insecurity in associations between interparental conflict and their self-representations, thus supporting the emotional security hypotheses (Cummings & Davies, 2010; Davies & Cummings, 1994). One methodological strength worth noting is that it tested the relationship of each proposed mediator with the dimensions of self-representations simultaneously, offering the possibility of assessing their specific association with each dimension of self-representations. Indeed, the pattern of results obtained in this study highlights the value of examining the specific potential roles of the different response domains of emotional insecurity.

The findings also supported the importance of parent-child relationship factors,

namely dimensions of support (i.e., companionship, instrumental aid, intimate disclosure) and negative interactions (i.e., conflict, antagonism), as explanatory mechanisms linking interparental conflict to children's and adolescents' self-representations. In addition, findings supported the expectation that both mothers and fathers are important for their children's selfrepresentations, in line with previous studies on the relationship between parent-child relationships and self-esteem (Bulanda & Majumdar 2009; Milevsky et al., 2007). This line of research has typically focused on the mother-child relationship or has collapsed mothers and fathers into a parent-child relationship variable (Siffert et al., 2012). However, research has documented differences between mothers' and fathers' roles in the life of their children (Day & Padilla-Walker, 2009; Collins & Steinberg, 2006; Laursen, Furman, Mooney, 2006). Therefore, the nature of children's and adolescents' perception of their relationship with their mothers and fathers may differ (Marceau et al., 2015). This study was also the first empirical effort to address the role of children's and adolescents' perception of their relationship with both their parents in the relations between interparental conflict and their domain specific self-representations. By doing so, this study has the merit not only of considering the role of fathers, which has been less explored in research on childhood and adolescence (Phares, Fields, Kamboukos, & Lopez, 2005), but also of analysing triads, which allowed the analysis of the role of both the mother and the father regarding the same child/adolescent. In addition, the inclusion of children's and adolescents' perceptions of their relationship with their father in this study allowed the demonstration of fathers' importance for their self-construction process. This study thereby highlights the importance of including fathers in future research about children's and adolescents' development processes.

Examining the unique contributions of children's and adolescents' perceptions of relationships with their mother and father in separate models is a methodological strength of the study that allows addressing the problem of shared predictive ability that arises when using the approach of identifying the unique contributions of both perceptions in the same model. Although such an approach would allow assessing whether mother-child or father-child relationships have a higher explanatory power than its counterpart, it would ignore the predictive ability shared with the perceptions of the relationship with the other parent, stemming from the often moderate to high correlations between the perceptions of both relationships (Stolz, Barber, & Olsen, 2005). This offers the possibility of assessing specific combinations of associations among interparental conflict, features of both relationships and

each domain of children's and adolescents' self-representations, and thus a better understanding of the differences between the roles of the proposed mediators and between the role of mothers and fathers on the different self-representation domains.

In the second study, the self-representation construction process was analysed basing on the Looking-glass self hypothesis (LGSH). The LGSH has been the focus of study and research for quite some time, but has been surrounded by some degree of controversy. If, on the one hand, some studies have supported this hypothesis (e.g., Bois et al, 2005; Nurra & Pansu, 2009), on the other hand, other studies have suggested that what individuals think of themselves is not influenced by the perceptions of others (e.g., Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979). The contribution of this study to this debate consisted in supporting the LGSH in the context of relationships with significant others (specifically, the mother) by showing the influence process from mothers' actual appraisals through mothers' reflected appraisals to self-representations.

As previously noted by Felson (1990), findings of this study suggest that this process is complex and that some characteristics of the relationship are relevant to the understanding of others' influence. Another merit of this study was the test of the moderating role of the communication patterns with the significant other taken into account. Nevertheless, the results provided little support for that moderating role, thus suggesting that the relational context of close relationships with parents is characterized by a sufficient amount of communication opportunities (both verbal and non-verbal) that enable a strong enough accuracy in children's and adolescents' perceptions of their mother's appraisals of them. However, the scarcity of significant moderated mediation effects may also be due to fact that, in the context of child/adolescent maltreatment, communication between children/adolescents and their mother may not be as effective as in normative contexts, thereby being less likely to allow a clear feedback from mothers regarding children's' and adolescents' attributes, and, thus, have little influence in the strength of the association between mothers' actual appraisals and mothers' reflected appraisals.

Findings of this study supported Cooley's description of the looking-glass self as well as James's (1980) insight that how others see the self matters, suggesting that reflected appraisals, whether they reinforce or undermine one's self-representations, are important building blocks for the self. Our findings support the social construction of self-representations by suggesting that children and adolescents incorporate what they think their

mothers think of them in their self-representations. As also in line with the results of previous research (e.g., Felson, 1993; Shrauger & Schoeneman, 1979), self-representations were more positive than mothers' actual appraisals. In addition, findings supported the assumption that the LGSH illustrates a complex and contextualized process of significant others' influence on children's and adolescents' self-representations. These results thus add to a growing body of research supporting the idea that the mediational pathways proposed by the LGSH are stronger and clearer in the context of close relationships with significant others, suggesting that this is the case even in relational contexts where parent-child communication may be more hampered, such as parent-child relationships marked by maltreating parenting practices. Indeed, as explained earlier in Chapter IV, maltreated children and adolescents typically have rather idealized perceptions of their family environment (Siqueira et al., 2009; Yunes et al., 2001). Also, despite experiencing adversity within that environment, they often perceive family members, especially their mother, as an important source of support (Bravo & Del Valle, 2013; Dinisman et al., 2013; Yunes et al., 2001).

Taken together, both studies support previous claims regarding the importance of family factors in the construction of children's and adolescents' self-representations (e.g., Harter, 2015; Lewis, 1990; Markus & Cross, 1990). More specifically, findings of both studies support the notion, emphasized by both attachment theory and Cooley's symbolic interactionism theory, that interactional patterns with parents/caregivers are considered as the building blocks for self-construction (Carmichael et al., 2007), given that, from birth on, they are progressively assimilated and accommodated, forming the organizing principles of the self (Deason & Randoplh, 1998). Consistent with the symbolic interaction framework (Burr et al., 1979), findings of both studies support the notion that close interpersonal experiences within the crucible of the family matter for the construction of self-representations, and that these emerge as individuals interact with parents. On an ongoing basis, children and adolescents see significant others (e.g., parents) respond to their actions, interpret their reactions, and internalize the responses of others to the self (Cooley, 1902).

Accordingly, benevolent socializing agents will readily provide the warmth, praise, encouragement, or physical affection that will be mirrored in positive self-representations (Garber et al., 1997; Plunkett et al. 2007). Conversely, unresponsive caregivers, lacking in nurturance, encouragement, and approval, and who are rejecting, punitive, or neglectful, are likely to cause their children to develop negative images of self. In such child-rearing

situations, family members tend to reinforce children's and adolescents' negative self-evaluations, which are then assimilated into their self-concept (Briere, 1992; Fischer & Ayoub, 1994; Harter, 1998; Herman, 1992; Terr, 1991; Westen, 1993). Consistent with these arguments, attachment theorists (e.g., Bretherton, 1991; Bretherton & Munholland, 2008; Sroufe, 1990) noted that children who experience responsive caregiving with parents emotionally available, loving, and supportive of their mastery efforts will construct a working model of the self as lovable and competent. Oppositely, children who experience unresponsive caregiving with attachment figures that are rejecting or emotionally unavailable and non-supportive will construct a working model of the self as unlovable, incompetent, and generally unworthy (Carmichael et al., 2007; Harter, 2015).

Unresponsive caregiving is most likely to occur in adverse family environments, characterized by hostile social experiences both in the parent-child and interparental subsystems. Adverse social experiences in the parent-child and interparental relationships can severely undermine children's and adolescents' sense of security provided by attachment figures. Such sense of security is viewed as their overall expectation about their parents' responsiveness and supportiveness, and is closely linked to self-knowledge (Carmichael et al., 2007). Therefore, social experiences in the family that disrupt that sense of security - such as interparental conflict and abusive and neglectful parenting - can be very damaging to the self-construction process. The expectations about the unresponsiveness of significant others, resulting from such social experiences, are likely to be incorporated into negative self-models and expressed as reduced self-worth and a pervasive sense of anxiety about close relationships (Holmes & Cameron, 2005). Alongside, such adverse family experiences may also contribute to social information-processing rules and biases, and to undermined mental representations of self and others (Repetti, Taylor, & Seeman, 2002).

Taken together, the results of the first part of both studies support the premise that the information that is abstracted into cognitive self-representations comes from the social contexts in which individuals are embedded, and that children's and adolescents' self-representations are built from what is important in their time and place (Cooley, 1902; Mead, 1924; Oyserman et al., 2012). In addition, our findings show that the construction of positive self-representations requires others, especially significant others such as parents or caregivers, who endorse and reinforce one's selfhood, which scaffold a sense that one's self matters. Indeed, the results clearly suggest that, in contexts that do not provide these

scaffoldings, children and adolescents are more likely to represent themselves in a less positive way.

b) Domain-specific self-representations as mediators of the link between adverse family experiences and psychosocial functioning

Regarding the second main goal of this research project, in both studies we also intended to contribute to increase understanding about the role of children's and adolescents' self-representations on their psychosocial functioning, in the context of the adverse family experiences of interparental conflict and child/adolescent maltreatment. Indeed, one of the main motivations underlying the study of self-concept is the recognition of the central role that it seems to have on individuals' well-being and overall adjustment (e.g., Caldwell et al., 2004; Harter, 2006, 2015; Marsh & Craven, 2006; Oyserman et al., 2012; Salmivalli & Isaacs, 2005; Tatlow-Golden & Guerin, 2016). People assume that all individuals have a stable sense of self, or core self, that predicts their behaviour, and that their actions reflect who they are (Arkes & Kajdasz, 2011; Oyserman et al., 2012).

Taken together, findings of both studies supported the mediating role of children's and adolescents' self-representations in the relation between adverse family experiences and their psychosocial functioning. In addition, the results obtained in the two studies, regarding the role of children's and adolescents' self-representations in associations between adverse family experiences and their internalizing and externalizing behaviour, suggest that the self is not a passive recipient of information collected in interpersonal experiences; instead the self also plays an active, executive role in guiding behaviour and interpreting experiences (Baumeister, 1998; Carmichael et al., 2007). However, this role is complex and varies across different self-representation dimensions. Specifically, our findings indicate that, while more positive instrumental and opposition self-representations seem to be clearly adaptive, in that they are associated with less problem behaviours, the results showing a positive association between social and physical appearance self-representations and higher levels with internalizing and/or externalizing behaviour are somewhat surprising and provide food for thought. On the one hand, this variability of the role of different self-representation domains further supports the multidimensional nature of self-concept, and is in line with the notion, increasingly highlighted in the literature, that self-perceptions may develop unevenly across domains (Burnett, 1996; Cole, Maxwell, et al., 2001; Harter, 2015; Shapka & Keating, 2005;

Salley et al., 2010). On the other hand, it suggests that some self-representation domains may be especially susceptible to be affected by self-enhancing strategies, self-serving biases, lack of self-awareness, and even narcissistic tendencies that may compromise one's authenticity, through tendencies to inflate, and/or distort, the real inner self, in the quest for social approval and its expected advantages (Harter, 2015).

Therefore, these findings call attention to the importance of recognizing the duality of stability and change of the self (Bem & Allen, 1974; Markus & Wurf, 1987; Oyserman, 2001). If, on the one hand, in this thesis we highlight parents' role in their children's self-representations, on the other hand it is necessary to recognize that instability caused by a permeability to the opinions of others may have negative consequences, such as lower levels of self-esteem and increased concern with obtaining approval from others (Harter, Stocker, & Robinson, 1996). It has been argued that the healthier development course seems to be the one in which individuals construct their self-representations in an active and selective way, such that self-representations become a compass to guide behaviour (see Higgins, 1991). Damon and Hart (1988) argue that those who rely too much on external social standards and feedback are at higher risk of developing an unstable self. These arguments have important practical implications, which will be addressed later in this chapter.

Additionally, as observed in the Study 2 model, the same self-representation dimension may play a different role depending on the type of maltreatment experiences considered. This suggests that the complexity of the role of self-concept domains may also be related to the context-based dynamic construction of self-representations which facilitates a sensitive attuning of behaviour to contextual circumstances. Although often experienced as stable, self-representations are malleable and situation-sensitive (Markus & Kunda, 1986). This is in line with one of the main principles of social psychology: that cognition is pragmatic, contextualized, and situated (Oyserman et al., 2012). Accordingly, how people think is greatly shaped by the options available at the moment and what they intend to do (Fiske, 1992). People think in contexts that are sensitive to meaningful features of their immediate environment and adjust their thoughts and behaviour to what they consider to be relevant in each context (Ferguson & Bargh, 2004; Fiske, 1992). Thus, cognition is profoundly influenced by the information accessible at the moment of deciding towards a given behaviour, and by the meaning attributed to that information (Schwars, 2007, 2010).

According to this principle, the specific self-representations that come to mind in each

interpersonal setting or situation is a dynamic product of that which is chronically accessible and what is situationally cued (Oyserman et al., 2012). Thus, it is possible that the selfrepresentation domains evaluated in these studies would play a different role on behaviour, if analysed in the context of other interpersonal experiences. Indeed, when a given interpersonal context stimulates a specific self-representation or cluster of self-representations, this cued self-knowledge encompasses a general readiness to act and make sense of the world. This readiness depends on what the self-representations that were stimulated mean in that specific interpersonal context or experience. Therefore, the predictive power of a specific selfrepresentation domain depends on the stability of the contexts that stimulate it. On the one hand, different types of adverse family experiences may arouse different aspects of selfknowledge. On the other hand, the specific self-representations or self-representation domains that are important in each moment are determined by what is relevant in that moment. Therefore, the implications of self-representations for individuals' behaviour as well as their mediating role between prior experiences and subsequent behaviour may be opaque and difficult to unravel. Indeed, notwithstanding the theoretical consensus that the self has implications for behaviour, the research literature has yet to assemble a similarly robust body of evidence of that this is so.

Despite these considerations, we consider that our studies significantly contribute to address this theory-evidence gap, by providing some evidence on how domain-specific self-representations are linked to internalizing and externalizing behaviour in children and adolescents. Our findings not only add to research literature on the link between self and behaviour, but they also contribute to go beyond this link by showing how different domains of self-representations may mediate the associations between social experiences within the family and psychosocial functioning. We consider that these findings contribute to the progress of this research field towards an increased understanding of self-representations as mental constructs, products of social experiences and forces for action.

In addition, the findings obtained in these studies provide new insights regarding the implications of different self-representation domains for behaviour and psychosocial functioning, which should be further addressed in longitudinal studies to increase our understanding about which factors may underlie the relation between adverse family experiences and psychosocial functioning in late childhood to middle adolescence. Indeed, most studies examining associations between family experiences and self-representations,

and between self-representations and children's and adolescents' psychosocial functioning have neglected several relevant self-representations domains. Given that self-concept is hypothesized to be a multidimensional system (Harter, 2015), which becomes increasingly differentiated in adolescence (Harter, 2006a), and since self-representations in different domains are conceptually and statistically independent (e.g., Harter, 1988; Silva et al., 2016), focusing predominantly on academic self-concept or measuring only global self-concept or global self-esteem ignores important variations in other important self-concept domains (e.g., social, emotional, physical appearance) (Putnick et al., 2008). Indeed, along with the cognitive-developmental advances mentioned above, several other stage-salient biological and social changes shape the construction and organization of children's and adolescents' self-representations (Meeus, 2011), such as marked changes in the body, the progressive emancipation from parents and increased changes in their social circles (e.g., Harter, 2015; Jacobs et al., 2003; Steinberg, 2013). Thus, assessing several relevant self-representations domains provided a clearer picture of how the interpersonal experiences considered are associated with different self-representation domains, and their associations with children's and adolescents' internalizing and externalizing behaviour.

c) Practical implications, limitations, and directions for future research

From a practical perspective, by suggesting that adverse family experiences of interparental conflict and child/adolescent maltreatment contribute to explain children's and adolescents' self-representations, and that several self-representation domains function as mediators between those experiences and their psychosocial functioning, the findings reported in this thesis have important practical implications, not only at the level of risky family environments, but also at the normative or community level. Indeed, our studies showed that even low to moderate levels of destructive interparental conflict and maltreatment experiences were associated with more negative self-representations in most assessed domains, as well as with higher levels of internalizing and/or externalizing behaviour. Given the considerable body of research suggesting that self-representations are important predictors of children's and adolescents' psychosocial adjustment (e.g., Cole, Jacquez, et al., 2001; Jacobs et al., 2003; Salmivalli & Isaacs, 2005), these findings point, first of all, to the need to reduce these adverse experiences as a primary target in preventing negative self-representations and psychosocial functioning difficulties in children and

adolescents. In addition, the identification of emotional, relational, and socio-cognitive processes as central factors explaining the negative associations between those experiences and children's and adolescents' domain-specific self-representations is highly relevant for practitioners working with children/adolescents from both normative and risky families, particularly for the development of intervention programmes targeting the interruption of the identified chains of links associated with poorer outcomes in children and adolescents. Indeed, the ultimate goal of testing process models is to allow the provision of specific recommendations for the development of empirically based interventions aimed at changing the causal and intervening factors identified in the results of the model tests (Buunk & Van Vugt, 2008).

Several studies and meta-analytic reviews have shown that interventions targeting parents and children with the aim of diminishing risk and enhancing protection factors in child and adolescent development have positive effects on numerous factors, including the overall family functioning, parental disposition, and children's well-being and cognitive, behavioural, and socioemotional development (e.g. Charles, Bywater, & Edwards, 2011; Dagenais, Bégin, Bouchard, & Fortin, 2004; Lundahl, Nimer, & Parsons, 2006; Whittaker & Cowley, 2012). However, several authors have highlighted that most programs implemented and robustly assessed are developed in specific contexts, most of them in North America (e.g. Donelan-McCall, Eckenrode, & Olds, 2009; McGoldrick & Giordano, 1996). Thus, knowledge about what works (and what does not) is mostly circumscribed to specific cultural contexts, and the impact that these interventions may have in contexts with different historical, cultural and social backgrounds remain uncertain (Moran, Ghate, & Van der Merwe, 2004). For this reason, in addition to being empirically based, it is important that these interventions be locally situated and culturally adapted (Moran et al., 2004). The results of our studies contribute to address both these needs, by providing several empirical clues for designing family support interventions obtained in a specific cultural context.

Intervention programs aimed at preventing and/or reducing adverse family experiences require adequate solutions regarding how they define their target groups, the scope of their interventions, their rationale, and evaluation criteria (Calheiros et al., 2017). Regarding target and scope, evidence from the last decade indicates that these interventions should be focused on the child and the family (e.g., Letarte, Normandeau, & Allard, 2010; Macbeth, Law, McGowan, Norrie, Thompson, & Wilson, 2015). In terms of rationale and

evaluation, mounting evidence indicates that tailored programs are more likely to get positive results (Axford, Little, Morphet, & Weyts, 2005; Taylor, 2005).

Accordingly, interventions should be tailored according to their implementation level. Namely, a distinction is made at the universal, selective, or indicated levels of intervention (e.g., MacLeod & Nelson, 2000; Guterman, 2001; Wolfe, McMahou, & Peters, 1997), previously designated as, respectively, primary, secondary and tertiary intervention (e.g., Browne & Herbert, 1997; Cohn-Donnelly, 1997; Newman & Lutzker, 1990). Applied to the risk factors analysed in the present thesis, intervention at the universal level would include all efforts targeted at populations in general that address the underlying societal causes of destructive interparental conflict and child/adolescent maltreatment (e.g., stress, violence, approval of corporal punishment as a form of discipline, poverty). At the selective level, interventions would focus on specific groups (e.g., families) identified as being at risk for destructive interparental conflict and maltreatment, and attempt to decrease the influence of those risk factors (e.g., poor conflict management skills, poor parenting, social isolation, parental personality problems). Finally, at the indicated level, interventions would include strategies targeted at groups (e.g., families) with high levels of destructive interparental conflict and in which child maltreatment already occurred (e.g., interparental violence), with the main goals of stopping violence between parents and child/adolescent maltreatment and minimizing the negative consequences for the child/adolescent, the family, and the society (Geeraert, Van den Noortgate, Grietens, & Onghena, 2004).

Although the number of parenting support programs aimed at reducing family risk has grown over the last decade, consistent findings about the effectiveness of family support programs with universal or targeted populations of parents are lacking (Mikton, & Butchart, 2009) or show discouraging results (e.g., Euser, Alink, Stoltenborgh, Bakermans-Kranenburg, & van IJzendoorn, 2015). Results of meta-analysis point out that intervention programs are only effective in reducing family adversities with high-risk populations and thus only protect children when the harm has been done (e.g., Euser et al., 2015). However, only a small proportion of risky families belong to this high-risk group. Therefore, prevention efforts should not only focus on populations with the highest risk, and research should focus and prioritize the development and testing of both universal and targeted prevention programs in order to protect all children against maltreatment. Given that this research project included one study developed with a normative sample, with low to moderate levels of destructive

interparental conflict (Study 1), and another with a sample of an endangered context, with families reported to the child protection system (Study 2), our findings provide important clues for the development of interventions at the three levels of prevention. Specifically, findings of Study 1 provide clues for interventions at the universal and selective levels, while findings of Study 2 provide clues for interventions at the indicated level. Research has consistently supported parenting programmes as preventive interventions with positive effects of child and adolescent well-being and adjustment outcomes (Macbeth et al., 2015). However, the available programmes with a considerable evidence base, such as Incredible Years (McGilloway et al., 2014) and the Triple P Programme (Wilson et al., 2012), tend to focus exclusively on parents' skills to manage their children's behaviour (Macbeth et al., 2015), and have neglected other key psychological mechanisms that foster resilience, such as parental sensibility and parent-child relationships (Bakermans-Kranenburg, Van Ijzendoorn, & Juffer, 2003). Regardless of the intervention level, parenting intervention programmes should include multiple components (Benzies, Magill-Evans, Hayden, & Ballantyne, 2013). So, interventions aimed at preventing interparental conflict and maltreatment should involve not only parents, but also children and adolescents (e.g., Macbeth et al., 2015), and target not only parents' functioning, but also parent-child relationships/interactions, child functioning, family functioning and the overall family context (Geeraert et al., 2004).

Intervention programmes aimed at reducing adverse family relationship experiences as risk factors for children's and adolescents' development outcomes at the universal level are scarce (Euser et al., 2015). Thus, the fact that Study 1 was conducted with a community sample is an important strength of this research project. Given that interparental conflict conceptualized as any dispute, disagreement or expression of unpleasant emotions regarding everyday interparental issues - is a normal and inevitable occurrence in interparental relationships (Cummings & Davies, 2010), studies with normative samples can have a significant prevention value by providing important clues for promoting the early detection of the harmful influence of interparental conflict, reducing the risk of harmed self-representations in children and adolescents, and their negative consequences on several adjustment outcomes, such as internalizing and externalizing problems (e.g., Cole, Jacquez, et al., 2001; Jacobs et al., 2003; Salmivalli & Isaacs, 2005). These studies have also the potential to inform the development of sounder interventions to help parents handle conflict in a more constructive way, maintain adequately supportive relationships with their children,

and promote positive and realistic self-representations in their children.

The results of Study 1 allowed the identification of relevant components that should be included in interventions aimed at preventing the negative effects of destructive interparental conflict in the general population, as well as with targeted families with at least moderate, or at-risk of developing high, levels of destructive interparental conflict. However, despite growing evidence suggesting that tailored programs are more likely to yield positive results (Axford et al., 2005; Taylor, 2005), very often, the research results are applied in intervention programs in a very general way, that is, without considering the specific needs of the population they address (Calheiros et al., 2017). Given that problem levels can vary significantly between universal and targeted populations, interventions' intensity and delivery mode should be planned accordingly. In addition to increase the likelihood of positive results, this would also allow a better resource management.

The findings of the studies developed in this thesis contribute to make recommendations adapted to different target populations. Namely, interventions with the general population could be less intensive and require less time. It has been found that a fourweek program with a $2^{1/2}$ weekly session was a manageable level of participation for community families (i.e., families in the general population) (Cummings, Faircloth, Mitchell, Cummings, & Schermerhorn, 2008). As for interventions with targeted families, a recent meta-analysis suggests that these should be more intense and with a considerable number of sessions, for example 16-30 sessions for 6-12 months (Euser et al., 2015). In addition, the delivery formats of such interventions should consider their goals and target population. Thus, for community families (i.e., the general populations), psychoeducational approach, including lectures combined with active and engaging activities (Cummings & Davies, 2010; Blanchard, Hawkins, Baldwin, & Fawcett, 2009), would be an appropriate delivery method. For these families, educational programmes targeting groups of community could be an effective way of increasing parental knowledge, thereby leading to improvements in parental behaviour and in abilities to handle subsequent discord (Cummings, Faircloth, Schacht, McCoy, & Schermerhorn, 2015). For targeted families, experiencing moderate levels of destructive interparental conflict, a more intense intervention, combining individual and group methods would be more appropriate (Macbeth et al., 2015).

Regardless of differences in intensity, duration, and delivery method of interventions, considering the target populations, in order to prevent children and adolescent emotional

insecurity as well as the spillover of difficulties in the interparental relationship to the parent-child subsystem and their potential deleterious effects on their self-representations, both in the general and targeted population, the reduction of frequent, intense and poorly resolved interparental conflict is an intervention priority. Thus, interventions with parents should aim at promoting more constructive conflict tactics, such as assertive communication, calm discussion, problem solving, focus on the present feelings and situation, the expression of positive emotion during disagreements, listening skills, support, and physical and verbal affection (e.g., Cummings & Schatz, 2012; Davies et al., 2012; Miga et al., 2012).

Findings of this study also suggest that interventions should also aim at increasing parents' consciousness of the interdependence of the marital and parental subsystems. This could be achieved by teaching parents to understand and identify which behaviours may negatively impact their children (Cummings & Davies, 2010). This, in turn, may allow a better understanding of how difficulties in managing interparental conflict may be detrimental their children's self-representations, and how damages in different domains of self-concept may lead to adjustment problems. In addition, interventions aimed at promoting better parent-child relationships would help break the negative associations between interparental conflict and children's and adolescents' self-representations. Given the strong associations between parent-child relationships and interparental interactions, in such interventions practitioners must have into consideration the interparental subsystem as well. This recommendation is particularly pertinent given that most interventions aimed at reducing negative outcomes in children and adolescents do not target the interparental relationships (e.g., Euser et al., 2015).

The identification of children's and adolescents' emotional insecurity in the interparental relationship as an intervening mechanism in the association between their exposure to destructive interparental conflict and their domain-specific self-representations suggests that interventions with children and adolescents should focus on the development of emotion regulation skills that help prevent excessive negative affect reactions to interparental conflict. For example, facilitating the acknowledgment, expression, and normalization of sadness, anger and anxiety related to conflict between parents could help children and adolescents explore and reassess the meaning of those experiences, changing their emotional consequences. At the same time, training of anger and anxiety management skills would help prevent excessive emotional reactivity. Promoting more prosocial and assertive behavioural

responses, through the development of communication skills to verbally express feelings vs. acting out, and through training of social problem-solving abilities in the context of interparental conflict, would contribute to modifying the situation and changing its emotional impact. This could increase the sense of control and self-efficacy in challenging interpersonal situations, thus facilitating the construction of more favourable self-representations. Findings of this study also suggest that interventions targeting children's and adolescents' emotional insecurity reactions should also have into consideration the characteristics of individuals' culture. Particularly regarding the development of adaptive behavioural responses to interparental conflict, the acknowledgement of the *respeto* value (Valdés, 1996) by practitioners is pivotal to the definition of what can be adaptive behavioural responses, and to refine interventions aimed at shaping children's and adolescents' adaptive behavioural reactions to interparental conflict.

In addition, the mediating role of children's and adolescents' perceptions of their relationships with their parents in associations between interparental conflict and their domain-specific self-representations suggest that interventions with children, adolescents and their parents should also focus on promoting better relationships with parents, for example, by fostering companionship, adequate disclosure and better conflict management strategies. In order to enhance felt support and diminish negative interactions, programs should target dimensions emphasised by previous meta-analysis, such as parental sensitivity and attunement (Bakermans-Kranenburg et al., 2003; Euser et al., 2015; Macbeth et al., 2015). Our results clearly suggested that although the relationship with both parents matters for children's and adolescents' self-representations, the relationship with the mother seems to have a preponderant role in their self-construction. Therefore, interventions focused on improving parent-child relationships should consider the specificities of the relationship with each parent.

Furthermore, the different mediational pathways found among interparental conflict, emotional insecurity and parent-child relationship dimensions and children's and adolescents' self-representations suggest that different self-representation domains are constructed through different emotional and relational mechanisms. These findings provide useful clues for the design of evidence-based interventions aimed at breaking the pathways linking interparental conflict to negative self-representations in children and adolescents, by suggesting that such interventions should be refined by considering the relative importance of different facets of

emotional insecurity and parent-child relationships with both parents to different self-representations domains.

The results of Study 2, in turn, provide a series of inputs for interventions with indicated maltreating families. Overall, the results of this study, showing that child/adolescent maltreatment experiences are associated with several self-representations domains and internalizing and behaviour problems, point to the need to reduce child/adolescent maltreatment as a primary target in preventing negative self-representations and internalizing and externalizing behaviour in children and adolescents from maltreating family environments. Recent meta-analyses studies provide several recommendations based on the evidence of the efficacy of existing programs aimed at preventing and reducing child maltreatment (e.g., Euser et al., 2015; Macbeth et al., 2015). Namely, interventions providing training for parents to improve their parenting skills, instructing them about their role and about common mistakes in parenting are more effective in reducing child/adolescent maltreatment (Euser et al., 2015). Accordingly, these interventions should include parentchild interactions training, with child-directed interactions, in which parents are instructed to follow the child's or adolescent's lead, and parent-directed interactions in which parents are taught to direct the child's or adolescent's behaviour and use consistent disciplinary strategies. In addition, meta-analysis findings indicate that interventions with a moderate duration (6-12 months) or a moderate number of sessions (16-30) were more effective compared to shorter or longer programs and to programs with fewer or more sessions. Therefore, in order to effectively enable changes in parenting behaviour, interventions targeting maltreating parents should be more comprehensive and longer (Euser et al., 2015).

Another major practical implication of the results of both studies of this research project regards the need for interventions aimed at promoting positive and, foremost, adaptive self-representations in children and adolescents with these family experiences, and in the general population as well. Our findings regarding the mediating role of children's and adolescents' domain-specific self-representations between those family experiences and internalizing and externalizing behaviour emphasise that reducing disturbances in self-representations is an important target of interventions aimed at preventing and reducing/treating problem behaviour in children and adolescents with higher relational risks at home. Specifically, the results of our studies emphasised a preponderant role of instrumental, social, physical appearance and opposition self-representations. Given the

potential specific implications of different self-representation domains for adolescents' psychosocial functioning, interventions should also target those specific domains. Additionally, the findings showing that more positive social self-representations were associated with higher levels in the internalizing and externalizing behaviour in Study 1, and that more positive social and physical appearance self-representations were associated with higher levels of externalizing behaviour in Study 2, suggest that, in addition to the need to promote the construction of positive, it is equally important to promote realistic and adaptive self-representations as protection against problem behaviour. Indeed, unrealistic or inflated self-representations are unlikely to protect against maladjustment, since they provide no incentive for self-improvement (Harter, 2015). As Covington (2006) has pointed out, encouraging children to think well of themselves without having earned it is educationally unjust and should be avoided.

Interventions aimed at enhancing self-representation domains should consider the reciprocal relation between self-representations and performance (Marsh & Craven, 2006). This relation suggests that enhancing self-concept along with enhancing performance adds value beyond skill training alone. Indeed, the most recent meta-analysis on self-concept interventions (O'Mara, Marsh, Craven, & Debus, 2006), concluded that such interventions are more likely to be effective if they incorporate praise and/or feedback strategies, especially if these strategies are goal-relevant, attributional, and contingent upon performance in an area of competence related to the targeted self-concept domains. These findings thus highlight the value of combining self-concept interventions with skills acquisition. Results of this metaanalysis also indicated that interventions targeting children and adolescents with identified problems tend to be more effective in improving self-concept than preventive interventions directed towards children/adolescents who already present reasonably high levels of selfconcept, who seem to not benefit as much from self-concept enhancement interventions. Thus, our findings showing that more positive social self-representations are associated with more problematic behaviours reinforce the need for interventions that support accurate perceptions of one's attributes contingent on palpable achievements, and that prevent inflated and distorted self-representations, which may underlie egocentrism, arrogance, and conceit (Baumeister et al., 1996). That is, the realistic appreciation of one's strengths and weaknesses should be the goal of such interventions (Harter, 2015). The findings of O'Mara and colleagues (2006) also suggest that self-concept interventions should also consider the

multidimensionality of self-concept. That is, instead of trying to improve all aspects of the children and adolescents' self-representations at once or indiscriminately, interventions should be domain-specific in order to ensure that their goals are actually achieved. Therefore, self-concept interventions need to focus on specific dimensions of self-concept and then assess the effects of the intervention in relation to that specific self-concept domain instead of, or in addition to, assessing other specific and global self-concept components. Finally, this meta-analysis indicates that self-concept enhancement interventions can be successfully implemented by a diversity of administrators in varied contexts.

Moreover, the results of the test of the LGSH, by supporting the influence of mother's appraisals of their children on children's and adolescents' self-representation construction process, highlight the need for these interventions to include mothers and other significant others as pivotal agents in interventions directed toward improving children's and adolescents' domain-specific self-representations. So, parents should be aware not only of what they do and say to their children, but also of the way children understand, perceive and interpret their beliefs and behaviours as it affects their subsequent adjustment outcomes. In terms of positive outcomes, parents may promote positive reflected appraisals and selfappraisals, positive expectancies, and encouragement, thus contributing to their children's positive adjustment outcomes. These interventions should encourage parent figures to communicate approval based on their children's adequate behaviour so that children and adolescents come to actively own the positive attributes instead of being too dependent on external feedback. Parents should also be encouraged to listen to their children, as a powerful validation strategy, thereby communicating that their thoughts, opinions and feelings are respected. This way, children and adolescents are more likely to express themselves authentically, and, therefore, to construct accurate self-representations and engage in true-self behaviour (Harter, 2005). In parallel, these findings also highlight the need for interventions to help children establish positive close relationships in their broader social network, which can foster positive and accurate self-representations.

Interventions targeting these components are especially relevant in the context of child/adolescent maltreatment, since, as our results suggest, interacting with caregivers who emphasize children's and adolescents' negative attributes may result in the consolidation of a self-negativity bias. The significant associations between mothers' actual appraisals and children's and adolescents' reflected appraisals and self-representations suggest that,

especially in maltreating families, it may be especially critical to deliver these interventions before the consolidation of negative working models of self and others. This is likely to be more effective as a preventive strategy than as therapeutic strategies beginning when potential negative representation models are already crystalized. Specifically, interventions aimed at preventing the crystallization of negative self-representations should target families with pre-school children, whose representational models may be more open to being modified by better experiences with caregivers as well as with other significant others who challenge their prior negative experiences with caregivers (Carmichael et al., 2007; Toth et al., 2000).

Notwithstanding the innovative aspects of this research and relevant practical implications, some limitations of our studies and suggestions for future directions are worth mentioning. First and foremost, this reflection about interpersonal experiences within the family as determinants of the social construction of self-representations, the role of emotional, relational and socio-cognitive dimensions in that process, and implications of domain-specific self-representations for behaviour highlights the need for longitudinal studies examining these processes. Indeed, in these studies, the cross-sectional nature of the data does not allow the causal analysis of these processes – the results of the analyses performed can be interpreted in terms of predictions but not causality. Although the direction of effects tested in the several models analysed were grounded on solid theoretical models and a sound body of previous empirical evidence, analysing these models through longitudinal studies would provide a more robust picture of these processes.

Also, the inclusion of other significant elements from children's and adolescents' social network in tests of the LGSH could emphasize other self-representations dimensions as more predisposed to significant others' influence (Nurra & Pansu, 2009). For example, peers influence could be stronger for the social and physical appearance self-representations, given the normative age-related scrutiny and critical evaluation by peers (e.g., regarding clothes, hair styles, activities and interests) that typically lead to the feeling that they are as preoccupied with one's behaviour and appearance as the child/adolescent is him or herself (Vartanian, 2000). It would however be expected that parents' influence in the instrumental dimension, which includes the attributes responsible, organized, hardworking and untidy would remain relevant, even after considering the influence of peers, given that information regarding these attributes are more likely to be communicated in interactions with parents

than with peers. However, the inclusion of teachers as significant others in the test of the LGSH could show a sharing of the influence on this dimension between teachers and parents, since teachers are also important providers of feedback regarding these characteristics. Also, although the findings regarding the moderating role of children's and adolescents' perceptions of communication with their mother in our test of the LGSH did provide compelling evidence for this role, it would be important to pursue this research question in future studies, namely comparing the role of parent-child communication dimensions on reflected appraisals accuracy, comparing normative with high-risk families.

The several possible interpretations presented in the discussion of the findings regarding the mediating role of domain-specific self-representations between adverse family experiences and internalizing and externalizing behaviour suggests that a clearer understanding of how the self influences behaviour would require a manipulation of which self-concept domain or set of self-representations come to mind in a specific interpersonal situation (Oyserman et al., 2012). Therefore, future studies aiming at clarifying these links should use research designs that allow the priming of different self-representation domains or specific attributes (for example, with the use of vignettes illustrating interparental conflict situations and child/adolescent maltreatment situations) and observational measures of behaviour, in an attempt to overcome the limitations inherent to self-report measures.

Finally, future studies in this area of research should further explore the potential of developmental social psychology as an overarching framework for studying the processes underlying the social construction of children's and adolescents' self-representations and other self-related dimensions (i.e., self-esteem, self-efficacy) and their mediating role between a wide range of interpersonal experiences with different significant others and their psychosocial functioning.

In sum, the results of the studies presented in this thesis highlight the complexity of the associations among children's and adolescents' family experiences, their domain specific self-representations, and their psychosocial functioning. Results also emphasize the value of considering the role of emotional, relational and cognitive processes. Based on thoughtful a priori hypotheses, the analysis of the specific features of these processes provided the opportunity to get a clearer grasp of that complexity and to make various patterns of predictions across the dimensions assessed. Specifically, the results obtained contribute to unravel how different predictors (i.e., family experiences and mother's appraisals) can be

associated with specific dimensions of the self. Regarding the analysis of the role of self-representations in the associations between adverse family experiences and psychosocial functioning, by considering the specificity of the self-representation domains, these studies contribute to reduce the opacity of the relationship between self and behaviour.

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APPENDIXES

APPENDIX A

[CHAPTER THREE]

Table 1

Descriptive analysis of the items of the SIS Scale

Item	М	SD	Sk	Sk/SE _{Sk}	Ки	Ku/SE _{Ku}
When my parents argue						
1. I feel sad	2.71	1.02	15	62	-1.13	-2.36
2. I feel scared	2.03	1.02	.64	2.65	72	-1.51
3. I feel angry	1.93	1.02	.79	3.26	55	-1.14
4. I feel unsafe	1.49	.85	1.71	7.09	2.03	4.23
6. I feel sorry for one or both of my parents	3.08	.93	70	-2.91	43	91
After my parents argue						
7. It ruins my whole day	2.06	1.12	.63	2.62	-1.00	-2.08
8. I can't seem to calm myself down	1.86	1.03	.92	3.80	38	79
9. I can't seem to shake off my bad feelings	2.03	1.08	.63	2.62	92	-1.92
When my parents have an argument						
12. I try to hide what I'm feeling	2.19	1.15	.39	1.60	-1.32	-2.76
13. I yell at. or say unkind things to, people in my family	1.38	.84	2.23	9.22	3.87	8.09
14. I hit, kick, slap, or throw things at people in my family	1.05	.26	5.77	23.92	35.93	75.11
15. I don't know what to do	2.31	1.08	.28	1.18	-1.18	-2.46
16. I try to distract them by bringing up other things	2.24	1.10	.34	1.41	-1.22	-2.54
18. I try to be on my best behavior (like doing nice things for them)	2.98	1.00	63	-2.61	71	-1.48
19. I try to clown around or cause trouble	1.24	.62	3.14	13.00	10.45	21.85
21. I feel caught in the middle	1.68	.85	1.07	4.44	.32	.66
22. I try to be really quiet	2.28	1.09	.32	1.33	-1.19	-2.49
23. I end up doing nothing, even though I wish I could do	2.44	1.13	.05	.19	-1.39	-2.90
26. I try to solve the problem for them	1.96	1.02	.77	3.20	56	-1.17
27. I wait and hope things will get better	3.03	.99	70	-2.90	58	-1.21
28. I try to comfort one or both of them	2.45	1.11	.06	.25	-1.34	-2.80
29. I feel like staying as far away from them as possible	1.66	.96	1.30	5.39	.56	1.16
30. I try to pretend that things are better	2.09	1.08	.45	1.87	-1.17	-2.44
31. I try to get away from them (for example. by leaving the room)	2.10	1.05	.55	2.26	91	-1.90
33. I feel like they are upset with me	1.72	.95	1.23	5.11	.52	1.09
34. The family is still able to get along with each other	3.01	1.05	77	-3.19	61	-1.28
35. I know they still love each other	3.31	1.07	-1.31	-5.41	.22	.47
36. I know that everything will be okay	3.34	1.00	-1.29	-5.35	.35	.74
37. I feel like it's my fault	1.65	.86	1.34	5.54	1.21	2.52
38. I worry about my family future	3.15	1.06	93	-3.87	47	97
39. I worry about what they're going to do next	2.81	1.08	40	-1.65	-1.13	-2.35

(cont.) 40. I know it's because they don't know how to get along 1.63 .88 1.43 5.93 1.33 2.79 41. I think they blame me 1.25 .64 3.00 12.43 9.22 19.28 42. I wonder if they will separate or divorce 4.59 1.77 1.15 1.11 -.43 -.90 43. I believe that they can work out their differences 1.07 -.93 3.18 -3.85 -.57 -1.20

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .24$; Ku = Kurtosis; $SE_{ku} = \text{Standard Error of Kurtosis} = .48$

Table 2
Sex differences on dependent and independent variables

	Sex	M	SD	t (p-value)	Cohen's d
International Control	Female	9.06	7.88	(2 (5 1)	
Interparental conflict	Male	9.74	8.32	62 (.54)	
AD Lorenzo del	Female	3.87	.62	4.70 (+001)	62
AR Instrumental	Male	3.47	.65	4.72 (<.001)	.63
AR Social	Female	4.23	.65	3.34 (<.01)	.45
AR Social	Male	3.93	.63	3.54 (<.01)	.43
AR Emotional	Female	4.32	.64	.73 (n.s.)	
AK Emotional	Male	4.26	.69	.73 (11.5.)	
AR Physical Appearance	Female	3.92	1.00	38 (n.s.)	
AK Filysical Appearance	Male	3.97	.90	38 (II.S.)	
AR Intelligence	Female	3.51	.89	-1.69 (n.s.)	
AK Intelligence	Male	3.71	.84	(,	
AR Opposition	Female	2.90	.98	-2.14 (<.05)	.29
AK Opposition	Male	3.18	.98	2.14 (<.03)	.2)
SIS Emotional reactivity	Female	2.07	.72	.37 (n.s.)	
515 Emotional reactivity	Male	2.04	77	.57 (11.3.)	
SIS Constructive family representations	Female	3.28	.80	.61 (n.s.)	
Sis constructive family representations	Male	3.21	.87	.01 (11.3.)	
SIS Spillover representations	Female	1.65	.69	71 (n.s.)	
SIS Spinover representations	Male	1.72	.82	., 1 (11.5.)	
SIS Avoidance by inhibition	Female	2.35	.97	.43 (n.s.)	
SIS Avoidance by inhibition	Male	2.29	.99	.43 (11.3.)	
SIS Avoidance by withdrawal	Female	1.91	.90	.02 (n.s.)	
515 Tivoldance by withdrawar	Male	1.91	.94	.02 (11.5.)	
SIS Involvement	Female	2.13	.86	.62 (n.s.)	
DIS INVOLVEMENT	Male	2.05	.89	.02 (11.5.)	

Note. M=Mean; *SD*= Standard deviation.

Table 3
Sex differences on children's and adolescent's perceptions of their relationships with their parents

	Sex	M	SD	t (p-value)	Cohen's d
Command Madhan	Female	4.24	0.60	2.07 (- 05)	20
Support Mother	Male	4.07	0.59	2.07 (<.05)	.29
Nacation Internations Mathem	Female	2.21	0.72	1 27 ()	
Negative Interactions Mother	Male	2.39	1.39	-1.27 (n.s.)	
Commont Eather	Female	3.92	0.72	1.02 ()	
Support Father	Male	3.81	0.74	1.03 (n.s.)	
Nacation Internations Eather	Female	2.16	0.85	(2 ()	
Negative Interactions Father	Male	2.23	0.75	63 (n.s.)	

Note. M=Mean; *SD*= Standard deviation.

APPENDIX B

[CHAPTER FOUR]

Table 1

Descriptive analysis of the attributes of self-representations

Item	M	SD	Sk	Sk/SE_{Sk}	Ки	Ku/SE_{Ku}
Grouchy	2.99	1.32	02	10	98	-2.83
Intelligent	3.65	.94	12	68	55	-1.58
Sad	2.23	1.23	.60	3.43	76	-2.18
Responsible	3.72	1.15	60	-3.42	46	-1.32
Misbehaved	2.13	1.07	.54	.18	56	-1.60
Pretty	3.89	1.16	61	-3.48	70	-2.01
Helpful	4.26	.89	-1.13	-6.47	.76	2.18
Kind	4.33	.88	-1.23	-7.13	1.15	3.31
Ugly	1.69	1.07	1.42	8.14	1.03	2.97
Alone/Lonely	1.75	1141	1.30	7.42	.52	1.48
Angry	2.16	1.15	.69	3.95	40	-1.14
Organized	3.69	1.22	51	-2.92	77	-2.23
Untidy	2.18	1.26	.73	4.19	57	-1.64
Nice	4.45	.74	-1.11	-6.37	.27	.79
Smart	3.81	.90	31	-1.75	49	-1.41
Hardworking	3.80	1.04	54	-3.07	42	-1.21
Stubborn	3.29	1.41	27	-1.53	-1.20	-3.45
Friendly	4.82	.51	-3.75	-21.49	18.44	53.10

Note. M = Mean; $SD = Standard\ deviation$; Sk = Skewness; $SESk = Standard\ Error\ of\ Skewness = .18$; Ku = Kurtosis; $SEku = Standard\ Error\ of\ Kurtosis = .35$

Table 2

Descriptive analysis of the attributes of the mothers' reflected appraisals

Item	М	SD	Sk	Sk/SE_{Sk}	Ки	Ku/SE_{Ku}
Grouchy	3.04	1.51	08	46	-1.40	-3.99
Intelligent	4.11	1.05	93	-5.30	08	23
Sad	1.91	1.15	1.15	6.51	.44	1.26
Responsible	3.69	1.25	63	-3.60	63	-1.81
Pretty	4.53	.81	-1.80	-10.25	2.81	8.03
Helpful	4.12	1.01	94	-5.32	.11	.31
Kind	4.24	1.07	-1.41	-8.01	1.23	3.52
Ugly	1.35	.77	2.34	13.31	5.43	15.52
Alone/Lonely	1.87	1.21	1.21	6.88	.36	1.02
Organized	3.58	1.24	45	-2.56	75	-2.15
Untidy	2.52	1.29	.39	2.24	90	-2.57
Nice	4.40	.91	-1.55	-8.80	1.87	5.34
Smart	4.12	.99	87	-4.94	08	22
Hardworking	3.81	1.16	66	-3.75	48	-1.38
Stubborn	3.26	1.47	22	-1.26	-1.31	-3.74
Friendly	4.59	.83	-2.13	-12.12	4.23	12.10

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .18$; Ku = Kurtosis; $SE_{ku} = \text{Standard Error of Kurtosis} = .35$

Table 3

Descriptive analysis of the attributes of the fathers' reflected appraisals

Item	М	SD	Sk	Sk/SE_{Sk}	Ки	Ku/SE_{Ku}
Grouchy	2.86	1.53	.13	.66	-1.45	-3.82
Intelligent	4.09	.94	85	-4.46	.26	.69
Sad	1.68	1.01	1.48	7.74	1.54	4.07
Responsible	3.65	1.17	47	-2.47	70	-1.86
Pretty	4.36	.86	-1.06	-5.55	01	01
Helpful	4.01	1.03	82	-4.32	16	42
Kind	4.13	1.05	-1.14	-5.95	.58	1.54
Ugly	1.36	.75	1.84	9.62	1.95	5.15
Alone/Lonely	1.72	1.11	1.45	7.58	1.18	3.12
Organized	3.62	1.24	61	-3.18	55	-1.44
Untidy	2.34	1.36	.62	3.25	83	-2.19
Nice	4.35	.86	-1.33	-6.96	1.45	3.82
Smart	4.06	.98	71	-3.74	23	60
Hardworking	3.72	1.14	61	-3.21	34	89
Stubborn	3.16	1.52	11	59	-1.46	-3.86
Friendly	4.54	.81	-2.08	-10.88	4.60	12.13

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .19$; Ku = .19

Table 4

Descriptive analysis of the attributes of the mothers' actual appraisals

Item	М	SD	Sk	Sk/SE_{Sk}	Ku	Ku/SE_{Ku}
Grouchy	3.27	1.22	13	52	74	-1.43
Intelligent	4.29	.94	-1.34	-5.13	1.35	2.61
Sad	2.13	1.25	.61	2.33	94	-1.81
Responsible	3.64	1.40	58	-2.23	90	-1.73
Helpful	4.28	1.10	-1.53	-5.85	1.70	3.29
Kind	4.65	.72	-1.91	-7.33	2.54	4.90
Alone/Lonely	1.66	1.09	1.58	6.04	1.64	3.17
Organized	3.15	1.43	.00	.00	-1.28	-2.48
Untidy	2.96	1.46	.06	.24	-1.32	-2.55
Nice	4.55	.85	-1.94	-7.44	3.41	6.60
Smart	4.60	.82	-2.05	-7.86	3.26	6.30
Hardworking	3.65	1.26	53	-2.01	72	-1.40
Stubborn	3.72	1.25	57	-2.18	74	-1.44
Friendly	4.78	.59	-2.85	-10.91	8.06	15.59

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .26$; Ku = Kurtosis; $SE_{ku} = \text{Standard Error of Kurtosis} = .52$

Table 5

Descriptive analysis of the attributes of the fathers' actual appraisals

Item	M	SD	Sk	Sk/SE_{Sk}	Ки	Ku/SE_{Ku}
Grouchy	2.76	1.32	.05	.16	-1.07	-1.86
Sad	2.22	1.20	.57	1.96	67	-1.16
Responsible	3.57	1.32	42	-1.42	-1.03	-1.78
Helpful	4.21	1.14	-1.45	-4.95	1.28	2.22
Kind	4.42	.99	-1.81	-6.18	2.96	5.12
Alone/Lonely	1.79	1.14	1.26	4.30	.54	.93
Angry	2.28	1.19	.53	1.82	47	81
Organized	3.34	1.31	25	86	-1.01	-1.74
Untidy	2.87	1.41	.05	.16	-1.23	-2.13
Nice	4.60	.80	-2.44	-8.33	6.71	11.61
Hardworking	3.73	1.26	68	-2.33	52	89
Stubborn	3.36	1.42	47	-1.60	-1.02	-1.77
Friendly	4.75	.59	-2.22	-7.57	3.73	6.45

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .29$; Ku = .29

Table 6

Descriptive analysis of the items of the PACS – Mother's version

Item	M	SD	Sk	Sk/SE_{Sk}	Ки	Ku/SE_{Ku}
1. I can discuss my beliefs with my mother without feeling restrained or embarrassed	4.26	1.13	-1.55	-9.10	1.47	4.46
2. Sometimes I have trouble believing everything my mother tells me	2.38	1.47	.41	2.42	-1.44	-4.38
3. My mother is always a good listener	4.36	1.11	-1.76	-10.36	2.11	6.41
4. I am sometimes afraid to ask my mother for what I want	2.60	1.53	.28	1.64	-1.47	-4.46
5. My mother has a tendency to say things to me which would be better left unsaid	2.62	1.55	.25	1.49	-1.52	-4.60
6. My mother can tell how I'm feeling without asking	4.11	1.31	-1.34	-7.91	.48	1.44
7. I am very satisfied with how my mother and I talk together	4.36	1.12	-1.90	-11.20	2.75	8.34
8. If I were in trouble, I could tell my mother	4.45	1.06	-2.09	-12.27	3.56	10.79
9. I openly show affection to my mother	4.38	1.06	-1.86	-10.92	2.79	8.44
10. When we are having a problem, I often give my mother the silent treatment	3.13	1.42	30	-1.76	-1.26	-3.81
11. I am careful about what I say to my mother	4.20	1.16	-1.48	-8.72	1.35	4.08
12. When talking with my mother, I have a tendency to say things that would be better left unsaid	2.95	1.54	11	63	-1.54	-4.66
13. When I ask questions, I get honest answers from my mother	4.48	.94	-2.14	-12.61	4.36	13.20
14. My mother tries to understand my point of view	4.27	1.09	-1.60	-9.42	1.89	5.71
15. There are topics I avoid discussing with my mother	3.43	1.48	53	-3.12	-1.13	-3.43
16. I find it easy to discuss problems with my mother	3.29	1.55	32	-1.91	-1.42	-4.30
17. It is very easy for me to express all my true feelings to my mother	3.93	1.30	89	-5.26	46	-1.40
18. My mother nags/bothers me	2.52	1.44	.32	1.90	-1.34	-4.05
19. My mother insults me when s/he is angry with me	1.80	1.32	1.43	8.42	.64	1.93
20. I don't think I can tell my mother how I really feel about some things	2.91	1.54	01	08	-1.50	-4.54

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .17$; Ku = Skewness

Table 7

Descriptive analysis of the items of the PACS – Father's version

Item	M	SD	Sk	Sk/SE_{Sk}	Ки	Ku/SE_{Ku}
1. I can discuss my beliefs with my father without feeling restrained or embarrassed	3.87	1.39	96	-5.29	38	-1.07
2. Sometimes I have trouble believing everything my father tells me	2.49	1.50	.28	1.54	-1.55	-4.33
3. My father is always a good listener	4.14	1.28	-1.36	-7.53	.61	1.70
4. I am sometimes afraid to ask my father for what I want	2.73	1.57	.13	.71	-1.59	-4.43
5. My father has a tendency to say things to me which would be better left unsaid	2.50	1.50	.38	2.08	-1.38	-3.84
6. My father can tell how I'm feeling without asking	3.41	1.55	44	-2.41	-1.32	-3.66
7. I am very satisfied with how my father and I talk together	4.06	1.29	-1.22	-6.74	.29	.81
8. If I were in trouble, I could tell my father	4.02	1.36	-1.19	-6.59	.10	.28
9. I openly show affection to my father	4.01	1.28	-1.13	-6.27	.17	.46
10. When we are having a problem, I often give my father the silent treatment	2.99	1.53	14	78	-1.45	-4.04
11. I am careful about what I say to my father	4.04	1.34	-1.28	-7.08	.39	1.10
12. When talking with my father, I have a tendency to say things that would be better left unsaid	2.58	1.49	.31	1.72	-1.34	-3.72
13. When I ask questions, I get honest answers from my father	4.24	1.16	-1.57	-8.69	1.57	4.37
14. My father tries to understand my point of view	4.08	1.25	-1.35	-7.44	.79	2.20
15. There are topics I avoid discussing with my father	3.30	1.51	36	-2.00	-1.27	-3.53
16. I find it easy to discuss problems with my father	3.05	1.54	07	41	-1.48	-4.13
17. It is very easy for me to express all my true feelings to my father	3.46	1.44	39	-2.17	-1.20	-3.34
18. My father nags/bothers me	2.40	1.44	.49	2.72	-1.20	-3.35
19. My father insults me when s/he is angry with me	1.66	1.19	1.59	8.78	1.17	3.27
20. I don't think I can tell my father how I really feel about some things	2.82	1.50	.05	.26	-1.43	-3.99

Note. M = Mean; SD = Standard deviation; Sk = Skewness; $SE_{Sk} = \text{Standard Error of Skewness} = .18$; Ku = Skewness

Table 8
Sex differences on dependent and independent variables

	Sex	M	SD	t (p-value)	Cohen's d
AR Instrumental	Female	9.01	7.68	1.69 (n.s.)	
AK IIIstrumentai	Male	9.94	8.31	1.09 (11.8.)	
AR Social	Female	3.87	0.63	1.01 (n.s.)	
AK Social	Male	3.47	0.65	1.01 (11.8.)	
AR Emotional	Female	4.19	0.70	-1.66 (n.s.)	
AK Emotional	Male	3.94	0.64	-1.00 (II.S.)	
AR Physical Appearance	Female	4.28	0.73	.88 (n.s.)	
AK Filysical Appearance	Male	4.25	0.68	.00 (11.5.)	
AD Intelligence	Female	3.90	1.02	52 (n.s.)	
AR Intelligence	Male	3.99	0.90	52 (n.s.)	
AP Opposition	Female	3.50	0.91	-2.68 (<.01)	.38
AR Opposition	Male	3.70	0.85	-2.08 (<.01)	.30
MRM Instrumental	Female	2.93	0.95	22 (n.s.)	
WKW Instrumental	Male	3.22	0.95	23 (n.s.)	
MDM Cardal	Female	6.75	6.06	1.00 ()	
MRM Social	Male	6.63	5.00	-1.00 (n.s.)	
MDM Emptional	Female	3.87	0.63	55 (n.s.)	
MRM Emotional	Male	3.47	0.65		
MRM Intelligence _ Physical	Female	4.19	0.70	10 ()	
Appearance	Male	3.94	0.64	.18 (n.s.)	
MDM Owner'd on	Female	4.28	0.73	2.49 (< 05)	26
MRM Opposition	Male	4.25	0.68	-2.48 (<.05)	.36
LIDM In strong autol	Female	3.90	1.02	1.14()	
HRM Instrumental	Male	3.99	0.90	1.14 (n.s.)	
IIDM C	Female	3.50	0.91	25 ()	
HRM Social	Male	3.70	0.85	35 (n.s.)	
IIDM Emational	Female	2.93	0.95	05 ()	
HRM Emotional	Male	3.22	0.95	05 (n.s.)	
IIDM Intalligance	Female	3.87	0.63	42 (n.s.)	
HRM Intelligence	Male	3.47	0.65	.42 (n.s.)	
IIDM Onn spition	Female	4.19	0.70	(0 (= =)	
HRM Opposition	Male	3.94	0.64	69 (n.s.)	
DI LINI	Female	4.28	0.73	1.10/	
Physical_Neglect	Male	4.25	0.68	-1.19 (n.s.)	
DI D 1 41	Female	3.90	1.02	77 (n.s.)	
Phy_Psych_Abuse	Male	3.99	0.90		
DL 1 1 NT . 1	Female	3.50	0.91	97 (n.s.)	
Phycological_Neglect	Male	3.70	0.85		
Com FM	Female	3.82	0.84		
Com_FM	Male	3.93	0.68	97 (n.s.)	

Note. M=Mean; *SD*= Standard deviation.

APPENDIX C

[CHAPTER FIVE]

Table 1
Sex differences on dependent variables

	Sex	M	SD	t (p-value)	Cohen's d
TDE I	Female 6.75		6.06	147	
TRF_Int	Male	6.63	5.00	.14 (n.s.)	
TRF_Ext	Female	4.57	9.25	0.10 (.05)	22
	Male	7.85	10.63	-2.12 (<.05)	.33

Note. M=Mean; SD= Standard deviation.

Table 2
Sex differences on dependent variables

	Sex	M	SD	t (p-value)	Cohen's d
Internalizing behaviour	Female	8.89	4.95	1.15 (n.s.)	
	Male	8.00	5.36		
Externalizing behaviour	Female	10.57	8.26	-1.21 (n.s.)	
	Male	12.26	10.20		

Note. M = Mean; SD = Standard deviation.

APPENDIX D

[INSTRUMENTS ADAPTED OR DEVELOPED – FINAL VERSIONS]

Security in the Interparental Subsystem (SIS) Scale - Child Report (Davies, Forman, Rasi, & Stevens, 2002)

Dimensions and items

Portuguese version [English or Original version]

Reatividade emocional [Emotional reactivity]

Quando os meus pais discutem, eu sinto-me...

[When my parents argue, I feel...]

Triste

[Sad]

Assustado(a)

[Scared]

Zangado(a)

[Angry]

Em risco

[Unsafe]

Depois dos meus pais discutirem...

[After my parents argue, ...]

Viver nesta instituição diz muito sobre quem eu sou

[It ruins my whole day]

Parece que não me consigo acalmar

[I can't seem to calm myself down]

Eu não consigo livrar-me dos maus sentimentos

[I can't seem to shake off my bad feelings]

Representações construtivas da família [Constructive family representations]

Quando os meus pais têm uma discussão...

When my parents have an argument...

A família ainda é capaz de se dar bem

[The family is still able to get along with each other]

Eu sei que eles ainda se amam um ao outro

[I know they still love each other]

Eu sei que vai ficar tudo bem

[I know that everything will be okay]

Eu acredito que eles conseguem resolver as suas diferenças

[I believe that they can work out their differences]

Representações de extravasamento [Spillover representations]

Quando os meus pais têm uma discussão...

When my parents have an argument...

Eu sinto-me apanhado(a) no meio

[21. I feel caught in the middle]

Eu sinto que a culpa é minha

[37. I feel like it's my fault]

Envolvimento [Involvement]

Quando os meus pais têm uma discussão...

When my parents have an argument...

Eu tento distraí-los trazendo ao de cima outras coisas

[I try to distract them by bringing up other things]

Eu tento resolver o problema por eles

[I try to solve the problem for them]

Dimensions and items

Portuguese version [English or Original version]

Evitamento por inibição [Avoidance by inhibition]

Quando os meus pais têm uma discussão...

When my parents have an argument...

Eu tento fazer mesmo muito pouco barulho

[I try to be really quiet]

Acabo por não fazer nada, apesar de desejar poder fazer alguma coisa

[23. I end up doing nothing, even though I wish I could do something]

Evitamento por afastamento [Avoidance by withdrawal]

Quando os meus pais têm uma discussão...

When my parents have an argument...

Apetece-me ficar tão afastado(a) deles quanto for possível

[29. I feel like staying as far away from them as possible]

Eu tento afastar-me deles (por exemplo, saindo da sala)

[31. I try to get away from them (for example, by leaving the room)]

Parent-Adolescent Communication Scale (PACS) – Child/Adolescent Form (Davies, Forman, Rasi, & Stevens, 2002)

Dimensions and items

Portuguese version [English or Original version]

Abertura na comunicação [Open communication]

Posso discutir as minhas ideias com a minha mãe/o meu pai sem me sentir constrangido(a) ou envergonhado(a)

[I can discuss my beliefs with my mother/father without feeling restrained or embarrassed]

A minha mãe/o meu pai é sempre um(a) boa/bom ouvinte

[My mother/father is always a good listener]

A minha mãe/o meu pai consegue perceber como eu me sinto sem me perguntar

[My mother/father can tell how I'm feeling without asking]

Estou muito satisfeito(a) com a forma como a minha mãe/o meu pai e eu conversamos

[I am very satisfied with how my mother/father and I talk together]

Se eu estivesse com problemas, poderia contar à minha mãe/ao meu pai

[If I were in trouble, I could tell my mother/father]

Eu mostro abertamente afecto para com a minha mãe/o meu pai

[I openly show affection to my mother/father]

Quando faço perguntas, obtenho respostas sinceras da minha mãe/do meu pai

[When I ask questions, I get honest answers from my mother/father]

Quando faço perguntas, obtenho respostas sinceras da minha mãe/do meu pai

[My mother/father tries to understand my point of view]

Quando faço perguntas, obtenho respostas sinceras da minha mãe/do meu pai

[I find it easy to discuss problems with my mother/father]

É muito fácil para mim expressar todos os meus verdadeiros sentimentos à minha mãe/ao meu pai

[It is very easy for me to express all my true feelings to my mother/father]

Problemas de comunicação [Communication problems]

Pertencer ao grupo de jovens desta instituição é muito importante para mim

[Sometimes I have trouble believing everything my mother/father tells me]

As amizades que fiz através de actividades na instituição ligam-me muito a esta instituição

[I am sometimes afraid to ask my mother/father for what I want]

A minha mãe/o meu pai tem tendência a dizer-me coisas que seria melhor não dizer

[My mother/father has a tendency to say things to me which would be better left unsaid]

Quando estamos a ter um problema, muitas vezes respondo ao meu pai com silêncio

[When we are having a problem, I often give my father the silent treatment]

Quando falo com a minha mãe/o meu pai, tenho tendência a dizer coisas que seria melhor não dizer

[When talking with my mother/father, I have a tendency to say things that would be better left unsaid]

Há assuntos que evito discutir com a minha mãe/o meu pai

[There are topics I avoid discussing with my mother/father]

A minha mãe/o meu pai resmunga/aborrece-me

[My mother/father nags/bothers me]

A minha mãe/o meu pai insulta-me quando está zangada comigo

[My mother/father insults me when s/he is angry with me]

Penso que não posso dizer à minha mãe/ao meu pai como realmente me sinto em relação a certas coisas

[I don't think I can tell my mother/father how I really feel about some things]