

Research Reports

Italian Adaptation of the "Autonomy and Relatedness Coding System"

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Abstract

The study examined the applicability of the observational technique developed by Allen and colleagues (Allen, Hauser, Bell, & O'Connor, 1994; Allen, Hauser, et al., 2003) to investigate the issues of autonomy and relatedness in parent-adolescent relationship in the Italian context. Thirty-five mother-adolescent dyads participated to a task in which they discussed a family issue about which they disagree. Adolescents were also administered a self-report measure assessing their relationship with mothers. Mothers reported significantly higher levels of promoting and inhibiting autonomy, and promoting relatedness behaviors than their children. Results also suggested a partial behavioral reciprocity within the dyads, regarding promoting and inhibiting relatedness, and inhibiting autonomy. Finally, mothers' inhibiting autonomy behaviors positively correlated to teens' perception of their relationship as conflicting; adolescents' inhibiting and promoting autonomy and inhibiting relatedness behaviors positively correlated to open confrontation, rejection and coolness, while promoting relatedness behaviors negatively correlated to open confrontation, rejection and coolness. The results suggest that, for Italian mothers, behaviors linked to autonomy seem to be associated with being involved in a more negative relationship with their children, even if not characterized by open hostility, while for Italian adolescents, behaviors linked to autonomy seem to be associated with threatening the closeness of the relationship. Globally, the findings suggest that the application of this observational procedure may help our understanding of youth autonomy and relatedness development in Italy, but they leave unanswered questions regarding its appropriate adaptation and the role played by cultural differences.

Keywords: autonomy, relatedness, parent-adolescent relationship, observational technique

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In recent decades, a growing body of research has focused on the process of individuation as a key developmental task during adolescence (Allen, Hauser, Bell, & O'Connor, 1994; Bray, Adams, Getz, & McQueen, 2003; Grotevant & Cooper, 1986; Hill & Holmbeck, 1986; Ingoglia, Lo Coco, Liga, & Lo Cricchio, 2011; Lo Cricchio, Liga, Ingoglia, & Lo Coco, 2012). This process includes, on the one hand, being able to operate in an autonomous and self-directed manner without being controlled or impaired by parents, and, on the other hand, having close and intimate ties with them. In this perspective, the achievement of a *state of autonomous relatedness* (Bowlby cited in Murphey, Silber, Coelho, Hamburg, & Greenberg, 1963) may be considered as the optimal outcome of the changes occurring in the parent-child relationship during adolescence. Several studies have shown that more individuated youngsters (characterized by high levels of both autonomy and relatedness) tend to report higher levels of self-esteem, self-confidence, academic achievement, and psychological well-being, and lower levels of psychopathology than teens characterized by impairments in autonomy and/or relatedness in the relationship with their parents (Delaney, 1996; Frank, Avery, & Laman, 1988; Ingoglia et al., 2004; Kins, Beyers, & Soenens, 2013; Kruse & Walper, 2008; Lamborn & Steinberg, 1993; Lee & Bell, 2003; McClanahan & Holmbeck, 1992; Pavlidis & McCauley, 2001; Willems, Schuengel, & Koot, 2011).

Nevertheless, the research regarding the development of youth autonomy and relatedness has been conducted primarily from the perspective of middle class European American childrearing values, limiting generalization to other cultural and socioeconomic settings (McElhaney & Allen, 2012; McElhaney, Allen, Stephenson, & Hare, 2009; Smetana, 2002; Tamis-LeMonda et al., 2008). Literature on sociocultural influences on parenting and adolescent development suggests that the sociocultural environment can shape the degree to which autonomy is valued, the way in which it is negotiated within parent-child relationship, and the outcomes associated to this process (Bornstein & Gungör, 2009; Greenfield, Keller, Fuligni, & Maynard, 2003; Harkness & Super, 2002; Levine et al., 2008; Manzi, Regalia, Pelucchi, & Fincham, 2012; Parke & Buriel, 2006; Peterson, Steinmetz, & Wilson, 2005; Phinney, Kim-Jo, Osorio, & Vilhjalmssdottir, 2005). For instance, parental behaviors that appear restrictive of adolescent behavior in one setting may have very different meanings in other contexts, and thus different consequences for youth adjustment (Deater-Deckard, Dodge, Bates, & Pettit, 1996; Ho, Bluestein, & Jenkins, 2008; McElhaney & Allen, 2001). Therefore research that aims to fully understand family processes concerning this aspect of adolescent development should carefully consider the role of cultural values, and the aspects of the autonomy and relatedness processes that unfold similarly across settings and those that are more peculiar to certain cultures (McElhaney & Allen, 2012; Tamis-LeMonda et al., 2008).

To enable the study of autonomy and relatedness in parent-adolescent relationship in a cross-cultural perspective, researchers need reliable and valid measurement instruments, particularly observational procedures which allow the assessment of specific behaviors. The observational technique developed by Allen and colleagues (Allen et al., 1994; Allen, Hauser, et al., 2003) is one of the most widely used to investigate these issues (Becker-Stoll, Fremmer-Bombik, Wartner, Zimmermann, & Grossmann, 2008; Holmbeck et al., 2003; Kahlbaugh, Lefkowitz, Valdez, & Sigman, 1997; Langfitt, Wood, Brand, Brand, & Erba, 1999; Pavlidis & McCauley, 2001; Samuolis, Hogue, Dauber, & Liddle, 2006; Scharf & Maysel, 2008), but until now no attempt has been made to apply it in the Italian cultural context. The general aim of this study is to analyze the applicability of the observational technique developed by Allen and colleagues to an Italian sample of mother-adolescent dyads. Mothers are the relational fulcrum of the family, while fathers seem to maintain a more peripheral position (Greene & Grimsley, 1990; Noller & Callan, 1990), and this is particularly true in Italy, where the centrality of the mother is more emphasized than in many other cultures (Carrà & Marta, 1995; Malagoli-Togliatti & Ardone, 1993). In Italian families, besides the task of child-rearing, mothers have also the role of providing guidance, socialization, and the transmission of norms and values (Manganelli & Capozza, 1993; Rosnati, 1996; Scabini, 2000).

The Autonomy and Relatedness Observational Procedure and Coding System

The observational procedure proposed by Allen and colleagues (Allen et al., 1994; Allen, Hauser, et al., 2003) is aimed at measuring autonomy and relatedness with respect to a “paradigmatic challenge” for a family with an adolescent, that is, negotiating different ideas and opinions of both parents and teen. It requires the participation of the adolescent and his/her parent(s) in the so-called “Revealed differences family interaction task”, in which they discuss family issues identified as areas of disagreement. To determine a topic for discussion, the adolescent and parent(s) are asked to separately rate eleven areas of possible disagreement in their relationship on a 5-point scale (from 1-not a problem to 5-a major problem); examples of issues are money, telephone use, friends, grades, household rules. The interviewers identify three topics for subsequent discussion by selecting the areas in which both the adolescent and parent(s) reported many problems (with scores higher than 3 for both of them). The adolescent is then recorded presenting his/her position on the three selected conflict areas. Both members of the dyad are then brought together, and the researcher explains to them the rules of their task. The discussion begins

only after the playing of the audiotape previously recorded with the adolescent. After hearing the audiotape, they have eight minutes to discuss each problem, trying to both explain their positions and find a possible solution. The videotapes and transcripts are then utilized to code the parent-adolescent interactions for speech promoting or inhibiting autonomy and relatedness within the dyad using the “Autonomy and Relatedness Coding System” (ARCS; Allen et al., 1994; Allen, Hauser, et al., 2003).

Coders use both the videotapes and transcripts of parent-adolescent interactions to determine the extent to which autonomy and relatedness are exhibited and/or undermined throughout the course of the discussion. Each interaction is coded independently by two trained researchers. Coders follow concrete behavioral guidelines provided by the ARCS to rate both parents’ and adolescents’ individual statements on all ten individual subscales (see Table 1), with scores ranging from 0 to 4. Specific interactive behaviors are coded and then added together on a priori grounds into four global scales: promoting relatedness, inhibiting relatedness, promoting autonomy, and inhibiting autonomy.

Table 1

Individual and Global Scales of the ARCS

Promotion of Autonomy	Inhibition of Autonomy	Promotion of Relatedness	Inhibition of Relatedness
<ul style="list-style-type: none"> • Stating reasons clearly for disagreeing • Confidence in stating thoughts and opinions 	<ul style="list-style-type: none"> • Recanting a position • Overpersonalizing the discussion. Blurring the boundary between the person and his/her position • Pressuring other person to agree 	<ul style="list-style-type: none"> • Queries to other person which are truly information seeking • Validating/Agreeing/Positively reacting to other person • Engaged interaction 	<ul style="list-style-type: none"> • Interrupting/Ignoring other person • Hostile or devaluing statements toward other person

Promoting autonomy behaviors are those which differentiate a person from others, reflecting independence of thought and the capacity of self-determination in social interaction. They allow the definition of the extent to which an individual feels free to think and act in a self-directed manner while accepting and encouraging the other one to express his/her position autonomously. They refer to the use of statements regarding the reasons behind a position and to a calm and confident tone in the discussion. In this scale there are two behavioral categories:

1. *Stating reasons clearly for disagreeing*: it refers to the ability to state clearly ones' own reasons and to give complete information in order to explain one's own position;
2. *Confidence in stating thoughts and opinions*: this category codes the extent to which a person demonstrates confidence by speaking out forcefully and often and with self-belief.

Inhibiting autonomy behaviors are those that make it difficult for both members of a dyad to discuss the reasons for their own opinions. They interfere with the expression of autonomy within a dyad by employing tactics of psychological control which diminish the importance of the other's position and, in this way, make it difficult for him/her to continue discussing his/her position in the interaction. These behaviors undermine autonomy both by directly contesting the other's statements about his/her positions and intentionally impeding discussion of the reasons behind positions. They do not simply reveal the absence of autonomy, but reflect several ways of inhibiting or avoiding autonomous discussion within a dyad. In this scale there are three behavioral categories:

1. *Placating/Recanting*: this code includes behaviors which inhibit a productive discussion of an issue by advancing a statement that the other member of the dyad doesn't mean (i.e. pretending to agree/change one's own position) in order to placate the other person and/or de-escalate the argument;

2. *Overpersonalizing/Blurring the boundary between the person and his/her position*: there are several ways this may be done, all of which have the same thing in common: they treat the disagreement as being in some respect a "fault" or feature of the person disagreeing rather than a dissimilarity in ideas and reasons;
3. *Pressuring the other to agree*: this code refers to all those statements that implicitly (using sarcasm) or explicitly (asking directly) pressure the other to change his/her mind by making it uncomfortable for him/her not to do so.

Promoting relatedness behaviors are those which reflect interest and involvement in, and validation of, another person's thoughts and feelings. They tend to increase the extent of positive interactions between members of a dyad, particularly by expressing interest in, and empathy and positive reactions toward, the other person, his/her thoughts and feelings. In this scale there are three behavioral categories:

1. *Queries of another person which are truly information seeking*: this category specifically refers to statements that indicate a genuine interest in what the other person thinks;
2. *Validating/Positively reacting to other person*: this category codes statements which tend to validate the other person by reacting positively to them. This may be done by agreeing with the other directly or by copying what the other says;
3. *Engaged interaction*: this category focuses upon the degree to which a person is engaging with another. A person can demonstrate engagement both verbally and non-verbally, and he/she is fully engaged only if he/she is sensitive to what the other is communicating.

Inhibiting relatedness behaviors are those which actively undermine the degree of positive interaction within a dyad, either by explicitly cutting off the other person when he/she is trying to speak, devaluing the speaker and what he/she is saying and, thus, implicitly cutting him/her off, or refusing to engage in a discussion. This scale includes two behavioral categories:

1. *Distracting/Ignoring/Cutting off other person*: this category refers to actions which ignore or cut off another person. The more statements explicitly communicate a lack of interest in the other's statements, and/or a lack of willingness to hear what the other is saying, the higher the score for this category will be;
2. *Hostile or devaluing statements toward other*: this category refers to devaluing statements which would be reasonably expected to leave the other person feeling annoyed, hurt about him/herself. This category includes statements which are rude or hostile toward the other person or their statements.

Each interaction is coded as the average of the scores given by two trained raters who are blind to other data of the study. Each partner's behavior in the dyad is then summed to yield a single dyadic score for each scale. The scoring system takes into account both the frequency and level of statements falling into each code: specifically, more frequent and/or intense statements are rated higher than less frequent and/or intense statements. The coding system produces ten scores for individual scales and four scores for global scales, both for parent (to teen) and for teen (to parent).

In the validation study, [Allen and colleagues \(1994\)](#) found empirical support for a three-factor model: autonomous-relatedness factor (obtained combining scales for promoting autonomy and relatedness), inhibiting autonomy factor and inhibiting relatedness factor, but more recent work has shown the value of examining the four global scales separately ([Allen, Hauser, O'Connor, & Bell, 2002](#); [McElhaney & Allen, 2001](#)).

Autonomy and Relatedness in Parent-Child Relationship and Adolescent's Psychosocial Adjustment

Results of a number of studies have shown that the ARCS global factors are differently related to each other. Both for teens and for mothers, autonomous-relatedness has been found not to be significantly associated to inhibiting autonomy and inhibiting relatedness, while inhibiting autonomy has been found to be positively linked to

inhibiting relatedness (Allen et al., 1994; Allen, Hauser, et al., 2002; Allen, Hauser, O'Connor, Bell, & Eickholt, 1996). Results have also shown a moderate behavioral reciprocity within the dyads. Mothers' and teens' promoting relatedness behaviors have been found to be positively associated to each other, and the same is for inhibiting relatedness behaviors (Allen, Hauser, et al., 2002; Allen, McElhaney, et al., 2003); mothers' and teens' promoting autonomy behaviors have been found to be positively but moderately associated to each other (Allen, McElhaney, et al., 2003) or not associated (Allen, Marsh, et al., 2002), and the same is for inhibiting autonomy behaviors. As outlined by Allen, McElhaney and colleagues (2003), mothers' and teens' behaviors promoting their own autonomy may be considered less conceptually linked than promoting relatedness behaviors: displaying one's own autonomy does not necessary enhance the other person's autonomy in the relationship.

Several studies have analyzed the role of autonomy and relatedness behaviors on adolescents' psychological adjustment showing that the way in which families handle youngsters' strivings for autonomy is linked to numerous aspects of their adjustment (Allen et al., 1994, 1996; Allen, Hauser, et al., 2002; Allen, McElhaney, et al., 2003; Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Holmbeck et al., 2003; McElhaney & Allen, 2001; Pavlidis & McCauley, 2001). Family discussions that allow for adolescents' to express their points of view openly while maintaining a positive relationship with the other have been linked to higher levels of social and interpersonal competence, greater self-esteem, higher levels of ego development, and lower levels of depressed affectivity and externalizing problems (Allen et al., 1994; Allen, Bell, & Boykin, 2000; Hall, 2002; McElhaney & Allen, 2001). In contrast, both inhibiting autonomy and inhibiting relatedness behaviors have been linked to a wide range of negative outcomes, including depression, externalizing problems, poor peer relationships, greater association with deviant peers and lower levels of ego-development (Allen et al., 2006; Allen, Hauser, et al., 2002; Pavlidis & McCauley, 2001).

Application of the Observational Procedure in other Sociocultural Settings

Allen and colleagues' observational procedure have been used in other countries than the US, for example, Germany (Becker-Stoll et al., 2008) and Israel (Scharf & Mayseless, 2008). Notwithstanding, none of these studies was specifically aimed at examining its applicability in a cross-cultural perspective; consequently we lack a basis for comparison. But, as shown by some studies, the associations between the ARCS factors may change in diverse social settings, and so one way to explore the meaning that autonomy and relatedness behaviors have for family members in a specific sociocultural context may be to investigate their reciprocal interrelations. For instance, Scharf and Mayseless (2008), differently than Allen and colleagues (1994), found that Israeli girls' exhibiting autonomy behaviors were highly related to inhibiting autonomy behaviors toward both mother and father. Even if conducted in the US cultural context, the study of Samuolis and colleagues (2006) on an inner-city, ethnic minority, drug abusing sample may also be useful to understand how the interrelations between the ARCS factors may change in diverse social settings. Differently than Allen and colleagues (1994), Samuolis and colleagues (2006) found that, both for adolescents and their parents, inhibiting behaviors were highly correlated to each other, defining an undermining autonomous-relatedness factor. According to these authors, the two types of inhibiting behaviors may be viewed as forms of detraction from the relationship. Moreover they found that autonomous-relatedness was positively linked to undermining autonomous-relatedness (both for adolescents and their parents) and psychological maladjustment indices, such as drug use, externalizing, and internalizing behaviors. In this sample, autonomous-relatedness was largely defined by behaviors indicative of reasoning and confidence rather than engagement and validating; these two types of behaviors do not necessary reflect positive traits. Samuolis and colleagues (2006) concluded that autonomous-relatedness could represent something qualitatively different

in this sample than was originally conceptualized by the ARCS creators. Authors also found evidence for a behavioral reciprocity within the dyads for undermining autonomous-relatedness but not for autonomous-relatedness.

Aims of the Study

The main purpose of the study was to explore the applicability of the observational procedure and coding system developed by Allen and colleagues in the Italian cultural context, focusing on mother-adolescent dyads. The first aim of the study was to explore the differences between mothers and their children in their scores of autonomy and relatedness behaviors. No previous study was specifically aimed at analyzing these differences. Notwithstanding, on the basis of descriptive results reported by a number of research studies (Allen et al., 1994; Allen, Marsh, et al., 2002; Allen, McElhane, et al., 2003; Pavlidis & McCauley, 2001), we hypothesized that mothers would report higher levels of promoting autonomy and relatedness behaviors, and lower levels of inhibiting autonomy and relatedness behaviors than their children.

The second aim of the study was to explore the interrelations among the autonomy and relatedness behaviors of mothers and adolescents. In light of the contradictory results of previous studies, no specific hypothesis was formulated.

Finally, the third aim of the study was to examine the construct validity of the coding system, investigating the relations among autonomy and relatedness behaviors and adolescents' perceptions of the quality of the relationship with their mothers. It was hypothesized that both maternal and adolescent promoting autonomy and relatedness behaviors would be related to a positive parent-child relationship, while inhibiting autonomy and relatedness behaviors would be related to a more negative relationship.

Method

Participants

Globally, 70 persons participated in the study, specifically 35 adolescents and their mothers. There were 10 boys and 25 girls; they aged from 14 to 19 years ($M = 16.35$, $SD = 1.67$). All youngsters attended the high school and lived with their parents. Mothers aged from 37 to 59 years ($M = 47.35$, $SD = 5.48$); all of them were married. Approximately 55% of mothers had a job and 45% were housewives; with regard to mothers who had a job, 16% were professional or managerial, 36% trades people, 15% skilled workers, and 33% unskilled workers. Of all participants, 75% of mothers had obtained their secondary school-leaving certificate. All the participants were Caucasian and were recruited through public announcement from several high schools of Sicily (southern Italy), that served middle-class communities.

Measures

Observed Autonomy and Relatedness in Mother-Adolescent Relationship — Adolescents and their mothers participated in a revealed differences family interaction task in which they discussed a family issue about which they disagreed. Typical topics of discussion included money (19%), grades (19%), household rules (17%), friends (14%), and brothers and sisters (10%). Other possible topic areas included communication, plans for the future, alcohol and drugs, religion, and dating. Both the videotapes and transcripts were then utilized to code the parent-adolescent interactions for speeches promoting or undermining autonomy and relatedness in the dyad using the ARCS (Allen et al., 1994; Allen, Hauser, et al., 2003; Ingoglia & Allen, 2010). Coder training and the establishment of inter-rater reliability on this coding system proceeded as follows. Authors were previously trained by coding

manual authors; new coders practiced using tapes for which consensus codes had previously been established. Next, the whole group of experienced and new coders coded a small number of the tapes from the current dataset; these tapes were considered practice tapes for the new coders. Additional new coders were trained in a similar manner, calibrating themselves to the group as a whole by practicing on consensus tapes. Bi-monthly coding meetings were held in which a single tape was coded by the entire group to discuss interpretations of the manual and to prevent coder drift. Each interaction was coded by two coders. Care was taken to ensure that coders were blind to the rest of the family data. In order to assess the reliability of the coding system, interrater concordance was calculated using intraclass correlation coefficients and evaluated using the guidelines provided by [Cicchetti and Sparrow \(1981\)](#): a coefficient less than .40 is considered poor, from .40 to .59 is fair, from .60 to .74 is good, and over .75 is excellent. Coefficients ranged from .60 (mother to adolescent, querying to other person) to .90 (mother to adolescent, inhibiting relatedness) showing a good to excellent reliability of the scales.

Reported Quality of the Relationship with Mother — In order to assess the quality of the relationship with their mothers, adolescents completed the Relationship with the Mother Questionnaire (RMQ; [Mayseless, Wiseman, & Hai, 1998](#)). RMQ a 63-item self-report measure consisting of seven subscales: (a) emotional closeness (10 items, e.g., “She can make me feel better when I’m in a bad mood”), which taps the strength of the emotional bonds with mothers; (b) communication (10 items, e.g., “Between ourselves we talk openly about things”), which taps into the extent to which adolescents may talk openly to their mothers, (c) mutuality (7 items, e.g., “When I see that something is bothering her I ask her about it”), which taps into the extent to which adolescents perceive the relation with their mothers as characterized by reciprocity, (d) rejection/coolness (10 items, e.g., “We appear to disturb each other”), which taps into the extent to which adolescents perceive their mothers as cold and rejecting, (e) supervision (8 items, e.g., “She always wants to know who I was with”), which taps into the extent to which adolescents perceive their mothers as controlling, (f) autonomy (8 items, e.g., “She allows me as much freedom as I want”), which taps into the extent to which adolescents perceive the respect of their own autonomy in the relationship with mothers, and (g) open confrontation (10 items, e.g., “We fight and argue a lot”), which taps into the extent to which adolescents perceive the relation with parents as conflictual. The items were presented as declarative statements; participants were asked to indicate on a 5-point scale (1 = very untrue; 5 = very true) the extent to which each statement was true of their relationship with their mothers. In the present study, the subscales had adequate internal consistency: Cronbach’s α ranged from .70 to .82.

Results

Differences Between Mothers’ and Adolescents’ Scores on the ARCS Scales

In order to examine differences between mother and adolescent scores on the ARCS scales, *t*-test for dependent samples was computed. Means, standard deviations and *t*-test are presented in [Table 2](#). Regarding the global scales, mothers reported significantly higher levels of promotion of autonomy, inhibition of autonomy, and promotion of relatedness than their children. Regarding the individual scales, mothers reported significantly higher levels of stating reasons clearly for disagreeing, pressuring other person to agree, querying and validating other person, while adolescents reported higher levels of ignoring other person.

Interrelations Among Scores of the ARCS Scales

In order to evaluate the correlation between the scores of the ARCS scales, Pearson product-moment correlation coefficient was calculated. Results are presented in [Tables 3 and 4](#).

Table 2

Means and Standard Deviations of the ARCS Scales and t-Test

	Mother		Adolescent		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Individual Scales					
Stating reasons clearly for disagreeing	2.21	0.67	1.76	0.58	-2.78**
Confidence in stating thoughts and opinions	3.38	0.82	2.97	0.91	-1.65
Recanting a position	0.24	0.64	0.35	0.67	0.59
Overpersonalizing the discussion	2.22	1.29	1.97	1.08	-1.17
Pressuring other person to agree	2.78	0.92	2.17	1.00	-2.96**
Queries to other person	1.43	1.00	0.55	0.78	-5.49***
Validating other person	1.74	0.93	1.21	0.86	-2.54*
Engaged interaction	2.64	0.79	2.38	0.68	-1.77 [†]
Ignoring other person	1.76	0.87	2.26	0.81	3.04**
Hostile statements toward other person	0.83	1.04	0.72	0.84	-0.52
Global Scales					
Promoting Autonomy	2.68	0.66	2.24	0.66	-2.53*
Inhibiting Autonomy	1.61	0.61	1.37	0.71	-2.51*
Promoting Relatedness	1.72	0.66	1.22	0.48	-4.31***
Inhibiting Relatedness	1.12	0.83	1.34	0.62	1.45

[†]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

Table 3

Correlation Coefficients for Individual and Global Scales of the ARCS Relative to Mothers

Individual Scales	1	2	3	4	5	6	7	8	9	10
1 Stating reasons for disagreeing	-									
2 Confidence	.43*	-								
3 Recanting a position	-.12	-.39*	-							
4 Overpersonalizing the discussion	-.01	.03	-.15	-						
5 Pressuring other person to agree	.02	.33 [†]	.16	.41*	-					
6 Queries to other person	-.24	-.14	.39*	-.27	-.10	-				
7 Validating other person	-.20	-.40*	.05	-.33 [†]	-.43*	.10	-			
8 Engaged interaction	-.19	-.36 [†]	-.03	-.37*	-.58***	.15	.81***	-		
9 Ignoring other person	-.09	.23	-.08	.56*	.51**	-.20	-.47**	-.39*	-	
10 Hostile statements toward other	-.10	.04	.12	.12	.28	.16	-.51**	-.45*	.50**	-
Global Scales										
11 Promoting Autonomy	-									
12 Inhibiting Autonomy	.03	-								
13 Promoting Relatedness	-.37*	-.49**	-							
14 Inhibiting Relatedness	.14	.51**	-.46*	-						

[†]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

Regarding mothers, globally the results showed that promoting autonomy behaviors were uncorrelated with inhibiting autonomy behaviors, negatively related with promoting relatedness behaviors, and positively but non significantly related with inhibiting relatedness behaviors; inhibiting autonomy behaviors were related negatively with promotion of relatedness and positively with inhibition of relatedness; promoting and inhibiting relatedness behaviors were negatively associated to each other.

Table 4

Correlation Coefficients for Individual and Global Scales of the ARCS Relative to Adolescents

Individual Scales	1	2	3	4	5	6	7	8	9	10
1 Stating reasons for disagreeing	-									
2 Confidence	.39*	-								
3 Recanting a position	.22	.02	-							
4 Overpersonalizing the discussion	.27	.43*	.31 [†]	-						
5 Pressuring other person to agree	.26	.44*	.17	.60***	-					
6 Queries to other person	-.09	-.32 [†]	-.38*	-.14	.10	-				
7 Validating other person	-.04	-.26	.37*	-.03	-.25	-.12	-			
8 Engaged interaction	-.33 [†]	.14	-.14	-.13	.06	-.01	.17	-		
9 Ignoring other person	.37*	.23	.22	.56**	.76***	-.01	-.10	.04	-	
10 Hostile statements toward other	.23	.27	.68***	.46*	.35 [†]	-.36 [†]	.28	-.19	.34 [†]	-
Global Scales	11	12	13	14						
11 Promoting Autonomy	-									
12 Inhibiting Autonomy	.48**	-								
13 Promoting Relatedness	-.23	-.15	-							
14 Inhibiting Relatedness	.41*	.80***	-.13	-						

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Regarding adolescents, globally the results showed that promoting autonomy behaviors were positively related with inhibiting autonomy and relatedness behaviors and negatively but not significantly related to promoting relatedness behaviors; inhibition of autonomy was positively related with inhibition of relatedness, and negatively but not significantly related to promotion of relatedness; promoting and inhibiting relatedness behaviors were related negatively but not significantly to each other.

Interrelations Between Mothers' and Adolescents' Scores of the ARCS Scales

In order to evaluate the correlation between mothers' and adolescents' scores on the ARCS scales, Pearson product-moment correlation coefficient was computed. Results are presented in Table 5. Regarding the global scales, the results showed that mothers' and teens' promoting autonomy behaviors were not related to each other, whereas inhibiting autonomy, promoting relatedness and inhibiting relatedness behaviors were positively related to each other. Regarding the individual scales, the results showed that mothers' and adolescents' behaviors overpersonalizing the discussion and engaging interaction tend to be more strictly related to each other than other categories.

Validity of the ARCS Scales

In order to evaluate the correlation between the ARCS scales and adolescents' perception of their relationship with mothers, Pearson product-moment correlation coefficient was calculated. Results are presented in Table 6. Concerning mothers' behaviors, only inhibition of autonomy was in some degree positively related to open confrontation. Regarding adolescents, promotion of autonomy was positively related to open confrontation, rejection/coolness, and in some degree to supervision; inhibition of autonomy was positively related to open confrontation, and in some degree to rejection/coolness; promotion of relatedness was in some degree negatively related to open confrontation, rejection/coolness, and supervision; inhibition of relatedness was positively related to open confrontation and rejection/coolness.

Table 5

Correlation Coefficients Between Mothers' and Adolescents' Scores on the ARCS Scales

Individual Scales	
Stating reasons clearly for disagreeing	.04
Confidence in stating thoughts and opinions	-.22
Recanting a position	-.03
Overpersonalizing the discussion	.52**
Pressuring other person to agree	.35 [†]
Queries to other person	.55**
Validating other person	.20
Engaged interaction	.43*
Ignoring other person	.45*
Hostile statements toward other person	.35 [†]
Global scales	
Promoting Autonomy	-.02
Inhibiting Autonomy	.70***
Promoting Relatedness	.43*
Inhibiting Relatedness	.38*

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Correlation Coefficients Between Mothers' and Adolescents' Scores on the ARCS Scales and the RMQ Scores

	EC	C	M	OC	RC	S	A
Mothers							
Promoting Autonomy	.16	.16	.21	-.03	-.07	-.06	.20
Inhibiting Autonomy	-.29	-.30	-.24	.32 [†]	.25	-.07	.11
Promoting Relatedness	.09	.13	-.04	-.09	-.12	-.03	.02
Inhibiting Relatedness	-.02	-.23	-.16	.11	.23	-.02	.01
Adolescents							
Promoting Autonomy	-.13	-.18	-.19	.45*	.38* _†	.36 [†]	-.16
Inhibiting Autonomy	-.20	-.25	-.30	.42* _†	.33 _†	-.05 _†	.01
Promoting Relatedness	.12	.13	.21	-.36	-.35	-.33	.22
Inhibiting Relatedness	-.31	-.29	-.28	.47**	.37*	-.06	.15

Note. EC Emotional Closeness, C Communication, M Mutuality, OC Open Confrontation, RC Rejection/Coolness, S Supervision, A Autonomy.

[†] $p < .10$. * $p < .05$. ** $p < .01$.

Discussion and Conclusions

To enable the cross-cultural study of autonomy and relatedness in parent-adolescent relationship, scholars need a reliable and valid measurement instrument. The general aim of this research was to analyze the applicability in the Italian cultural context of the observational technique developed by Allen and colleagues (Allen et al., 1994; Allen, Hauser, et al., 2003). Globally, the findings suggest that the application of this observational procedure may help our understanding of youth autonomy and relatedness development in Italy. Notwithstanding, they also evidence some differences from previous studies and criticalities (such as the limited sample size) which leave unanswered a crucial question: Has this observational procedure been adapted correctly in the Italian context, or does the meaning of autonomy and relatedness behaviors substantially differ across the Italian and US culture?

The first aim of the study was to explore the differences between mothers and their children in the scores of autonomy and relatedness behaviors. As hypothesized, mothers reported higher levels of promoting autonomy (specifically, expressing reasons behind disagreement) and relatedness behaviors (particularly, querying and validating), but differently than hypothesized, they also reported higher levels of inhibiting autonomy (specifically, pressuring the other person to agree) than their children. Regarding inhibiting relatedness as a global factor, no difference emerged, but adolescents reported higher scores of interrupting/ignoring the other than mothers. These results suggest that mothers seem to have greater capabilities for promoting both autonomy and relatedness than their children, but they also tend to inhibit autonomy, particularly by pressing their children to agree, more than youngsters. On the contrary, adolescents tend to make use of ignoring/cutting off behaviors much more than their mothers. We may hypothesize that mothers have more mature abilities in conflict negotiation which may help them to manage the autonomy and relatedness issues, even though they are also more pressing. Mothers' inhibition of autonomy is indeed primarily defined by pressuring other person to agree, not recanting or overpersonalizing, with the latter being more coercive tactics of psychological control which diminish the importance of the other's position than the former. Unfortunately, there is a lack of studies in this specific field, and we need to further investigate these differences between mothers and their children.

The second aim of the research was to study the interrelations between autonomy and relatedness behaviors. In light of the contradictory results of previous studies, no specific hypothesis was formulated. Firstly, we separately explored the associations among behaviors exhibited by mothers and those exhibited by teens. In general, the results showed that some behavioral categories were reciprocally associated for mothers but not for teens and vice versa, suggesting that they may convey different meanings and serve distinct functions for each of them. Concerning the behaviors belonging to the relatedness domain, for mothers, promoting and undermining relatedness behaviors were negatively related to each other, while for adolescents, they were independent. These results suggest that, for mothers, relatedness behaviors seem to refer to a unique and clearly defined domain, while for adolescents they do not. Regarding autonomy behaviors, for adolescents, promoting and inhibiting autonomy were positively related, confirming the results of other studies (Samuolis et al., 2006; Scharf & Mayseless, 2008), whereas for mothers they were independent of each other. Perhaps, for adolescents, the engagement in such behaviors is relevant to fulfill their autonomy needs independently of their specific meaning, and every possible way of expressing their own opinion may be considered to be adequate. Instead, for mothers, the two behavioral categories seem to be independent from each other, suggesting that autonomy is perceived as a more complex and multifaceted field. Concerning the interrelations between behaviors belonging to autonomy and relatedness domains, for mothers, differently than Allen et al. (1994), the promotion of autonomy was negatively associated with the promotion of relatedness and was unrelated to the inhibition of relatedness; in addition, the inhibition of autonomy was negatively associated with the promotion of relatedness and positively associated with the inhibition of relatedness, confirming results of other studies (Samuolis et al., 2006). For teens, differently than Allen et al. (1994), the promotion of autonomy was unrelated to the promotion of relatedness and was positively associated with the inhibition of relatedness, while the inhibition of autonomy was unrelated to the promotion of relatedness and was positively associated with the inhibition of relatedness, confirming results of other studies (Samuolis et al., 2006). Taken together, these results suggest that, for Italian mothers, all behaviors linked to autonomy seem to be associated with being involved in a more negative relationship with their children, even if not characterized by open hostility, while for Italian adolescents, all behaviors linked to autonomy seem to be associated with threatening the closeness of the relationship. One possible explanation may be that mothers and teens deal with the issues of autonomy and relatedness in different ways and that the results are perhaps affected by the cultural

context. In a culture such as the Italian one, in which connectedness has been traditionally emphasized over independence (Van de Velde, 2008), the expression of autonomy may be viewed as a risk for the relationship.

We also explored the correspondence of behaviors exhibited by mothers and teens. Results showed a certain reciprocity regarding inhibiting autonomy, promoting relatedness, and inhibiting relatedness behaviors, but not for promoting autonomy behaviors, partially confirming the results of Allen and colleagues (Allen, Hauser, et al., 2002; Allen, McElhaney, et al., 2003) and Samuolis and colleagues (2006). Mothers' tactics of psychological control are more likely to be "reciprocated" by their children than the behaviors reflecting independence of thought and the capacity of self-determination in social interaction. As underlined by Allen, McElhaney, and colleagues (2003), displaying one's own autonomy does not necessarily enhance the other person's autonomy in the relationship. It is more likely that mothers who pressured their teens or overpersonalized arguments have adolescents who behave similarly toward them during conflicts; at the same time, youths who express hostility during negotiation are more likely to have mothers who behave in the same way toward them. Globally, these results raise some questions: (a) Is it more difficult for a child to learn a mature way of affirming his or her own autonomy than immature ways? (b) Is autonomy a more complex domain than relatedness? Future studies should aim to analyze these aspects in more depth.

The final goal of the study was to examine the construct validity of the coding system, investigating the relations among mothers' and adolescents' observed autonomy and relatedness behaviors with adolescent perceptions of the quality of their relationship. Generally, teen reports were more strictly associated with their own observed behaviors than their mothers' behaviors. Moreover these findings were substantially consistent with those coming from the analysis of the interrelations between the ARCS factors. As it was hypothesized, the results showed that, for adolescents, the promotion of relatedness was, to some degree, negatively associated with open confrontation, rejection/coolness, and supervision, the inhibition of relatedness was positively associated with open confrontation and rejection/coolness, and the inhibition of autonomy was positively related to open confrontation, and, to some degree, rejection/coolness. Differently than it was hypothesized, the promotion of autonomy resulted positively associated with open confrontation, rejection/coolness, and, to some extent, supervision. In general, the results concerning relatedness behaviors were in the expected direction, while those related to promoting autonomy behaviors were not. Adolescents who perceive the relationship with their mothers as conflicting and characterized by rejection and lack of warmth tend to exhibit low levels of promoting relatedness behaviors and high levels of inhibiting autonomy, inhibiting relatedness, and promoting autonomy behaviors. Perhaps for Italian adolescents, the expression of autonomy is linked to a negative relationship. With regard to mothers, only inhibiting autonomy behaviors were, to a certain degree, positively related to their children's report of open confrontation: the more mothers tend to exhibit behaviors which undermine autonomy, the more their children tend to report their relationship as conflicting.

Taken together, the results of the present study suggest the existence of differences in the meaning of autonomy and relatedness behaviors exhibited by Italian mothers and adolescents when compared with US dyads, which may be attributed to culture. As recently underlined by Claes and colleagues (2011), in a cross-cultural study comparing Italian, Canadian and French families, Italian mothers are perceived by their children as using the most constraining parental practices when it came to parental behavioral control, as more demanding in terms of family rules and authorizations, as maintaining family rules and requiring their adolescents to ask for authorizations until a much later age, and they are seen as taking more punitive actions when rules are broken. Globally, authors found that there are more requirements, less tolerance, and stricter disciplinary actions perceived in Italian parents

than in Canadian ones. Recent research has described two contrasting parenting models that regulate the achievement of developmental tasks in adolescence in various cultures (Greenfield et al., 2003; Kagitçibasi, 1994, 1996; Kitayama, 2002). The *independent model* values individuation and gives importance to the development of initiative and autonomy; the *interdependent model* emphasizes collective dimensions, mutual support, loyalty to family and respect of parental authority. Italian parents' parenting practices seem to correspond to the interdependent model, which emphasizes emotional bonding within a strict framework of requirements, rules, and disciplinary restrictions (Claes et al., 2011). As outlined by Scabini, Marta, and Lanz (2006), the Italian family is characterized by a high degree of emotional bonding and support from both parents, yet also by restrictions; indeed, children have obligations to family and relations of dependency with their parents.

As with any study, there are a number of shortcomings that limit the interpretability of the present findings. Firstly, the sample size of the current study was small, which limits its statistical power. Secondly, there was an unequal distribution of adolescents according to gender in the sample. This aspect may limit the results since gender differences exist in relation to autonomy and relatedness. Thirdly, more specific measures of mother-adolescent relationships have to be taken into account in order to better investigate construct validity. Moreover, as with any study of this nature, although the situation was designed to induce maternal and adolescent behaviors typically seen in their natural setting, it is possible that some participants may have been uncomfortable in front of the camera and felt compelled to act in ways that did not necessarily reflect how they would have behaved in a more ordinary setting. Another important limitation to the current study is that it involved only mother-adolescent interactions in the observation of autonomy and relatedness behaviors. The absence of data on fathers excludes an important member of the family system. In families in which fathers are present, their support and inhibition of their adolescents' autonomy and relatedness may play an important and distinct role (Allen et al., 1994), and may also have different implications for girls and boys.

As underlined by several authors (Bornstein & Güngör, 2009; Greenfield et al., 2003; Harkness & Super, 2002; LeVine et al., 2008; Manzi et al., 2012; Parke & Buriel, 2006; Peterson, Steinmetz, & Wilson, 2005), we need a more complete understanding of the role of sociocultural context before generalizing our current theories regarding autonomy and relatedness processes to all families. To enable the study of these issues in a cross-cultural perspective, researchers need reliable and valid measurement instruments, such as the observational procedure developed by Allen and colleagues. The findings of the present study suggest that the application of this technique may help our understanding of youth autonomy and relatedness development in Italy, but at the same time they leave unanswered questions regarding its appropriate adaptation and the role played by cultural differences. Future research should consider a wider range of participants more equally distributed in terms of gender, consider different members of the dyads during interactions and, last but not least, other variables in order to analyze the construct validity of the coding system.

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