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The Missing Link in Emotional Intelligence: Theory-research Versus Educational Programs

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*“I don't want to be at the mercy of my emotions. I want to use them, to enjoy them, and to dominate them.”*

Oscar Wilde, the Picture of Dorian Gray

To Xevi, my sisters and Laura

### Abstract

The interest for a superior understanding of emotions is long-standing since they play a key role in human life. During the last mid-century, scientists developed emotional intelligence in order to shed light on the issue, being proposed various frameworks. Concurrently, in the field of education the application of emotional intelligence programs has gained popularity since the Western traditional schooling model is showing itself inadequate in order to achieve complete student's development. Nonetheless, teachers and communities should be critical on the growing number of programs appeared, as scientific rigor is compromised in some cases. In this context, the aim of the study is to reveal the relation between emotional education programs -particularly the ones implemented within the Iberian Peninsula- and emotional intelligence global research. In pursuance of that goal, it will be necessary to review the more robust emotional intelligence theories -with its associated research-, concurrently to the analysis of the most prominent programs applied so far. Thus, connections between them should be disclosed and analyzed. Certainly, a gap between both areas has been detected. Meanwhile experts recognize Salovey and Mayer's *abilities model* as the more valid approach, the majority of Iberian programs analyzed have been based on *mixed models* derived from Goleman's proposal. An explanation will be given, taking as a reference the discussion about the relationship between the emotional competences construct -that fits better with the educational context- and emotional abilities concept. Concurrently, guidelines for the assessment of the programs quality will be provided.

Keywords: emotional intelligence, emotional education, competences

## **The Missing Link in Emotional Intelligence: Theory-research Versus Educational Programs**

The odds are that after being questioned about whom wishes to better manage one's own emotions most of us would raise our hands. In fact, the interest for a superior understanding of emotions is long-standing (Gross, 2006). Greek philosophers as Aristotle (Fortenbaugh, 1975), writers as Shakespeare, and thinkers throughout different periods of time, have discussed about it within the broad field of personality, seeking to enhance human nature understanding. Moreover, emotion experiences are involved in almost every psychopathology (Flack & Laird, 1998) although, at the same time, they are a core part of our more enjoyable life experiences. Thus, although it would seem emotions play a key role in human life, what part do they have in it?

In order to answer the previous question, the interest was focused specifically on the interplay between emotions and thought. Historically, the relation between them has had its ups and downs. Depending on the period, feelings and their associated social values were emphasized, as in the Romanticism, whereas, for instance in recent post-modern times, reason has placed a preponderant position (Reddy, 2001). This mentioned unbalance has an effect on the central view about intelligence societies hold (Sternberg, 1986) and, therefore, on educational systems worldwide, in the sense that these systems tend to develop that particular intelligence on students. Nowadays, there is consensus about considering emotion to hold adaptive value (Damasio, 1995; Nussbaum, 2001; Salovey & Mayer, 1990) in contrast to older views that saw emotion as essentially disruptive for mental activity (Young, 1943).

### **Emotional Intelligence**

#### **Introduction**

In an attempt to clarify the relationship between emotions and thought, during the last

century, science took up the torch. Until 1969 research on emotions was conducted separately from intelligence research. Nonetheless, throughout the next 20 years, the precursors of emotional intelligence (EI) were put into place in the form of cognition and affect research (Forgas, 2001; Fernández-Berrocal & Extremera, 2006), which differs from EI in that the first comprehends more processes than the ones taking part in the domain of the interaction between emotions and thought. However, the contribution of multiple intelligences Gardner's theory (1983) was vital, in the sense that created the *imaginarium* that allowed researchers to think about different types of intelligence apart from the traditional view. EI is considered to overlap with inter and intrapersonal Gardner's intelligences and, at the same time, as a kind of social intelligence (Mayer & Salovey, 1993), since emotion abilities would play a key role in social interactions (Saarni, 1999; Thornike & Stein, 1937). Nonetheless, the construct was coined by Salovey and Mayer in 1990, which are considered the builders of the field foundations, integrating all the previous scattered research and providing a framework for future researchers. Later on, Goleman (1995) popularized the concept claiming that EI could predict better success in life than other indexes as IQ, although his affirmation has been criticized since it is not supported by empirical basis (Mayer & Cobb, 2000). Presently, research is more alive than ever (Mayer, Roberts, & Barsade, 2008) although unfortunately so it is lay work about what has been currently broadly known as EI.

**Neural basis.** EI researchers identified some specific brain parts that could physically support EI abilities. Very briefly, EI would exist thanks to the processes occurring within the interaction between the limbic system and the frontal lobe, although other parts might be involved (Bechara, Damasio, & Damasio, 2006; LeDoux, 2000; Morgado, 2002). For instance, mirror neurons could sustain empathy involving processes (Rizzolatti & Craighero, 2004), although some theoreticians would argue that mirror neurons only allow to imitate facial expressions, far from supporting the understanding of others internal states (A.

Castelló, personal communication, April 10, 2014). The mentioned neural paths would differ from the ones that sustain other intellectual processes as verbal or abstract reasoning.

**EI and well-being.** Research based on EI has found correlations between EI and important health issues like life and marital satisfaction (Bastian et al., 2004; Schutte et al., 2001). Furthermore, we human beings depend on emotions to accomplish such important tasks as decision-making (Bechara et al., 2006) as well as to develop proper social networks (Ciarrochi et al., 2001; Saarni, 2000). On the contrary, an inverse correlation has been disclosed between EI and the consumption of illegal drugs (Brackett, Mayer, & Warner, 2004) and depression (Dawda & Hart, 2000). In fact, psychopathology and some EI abilities, as for instance the regulation of feelings, have been linked through an extensive research: individuals that scored high on emotion regulation were less prone to develop psychopathologies (Kring & Sloan, 2010).

#### **Approaches: Abilities versus Mixed Models**

Although every approach provides its own definition of EI, authors agree on that EI comprehends the ability to carry out accurate reasoning about emotions and the ability to use emotions to enhance thought (Mayer et al., 2008). However, EI can be conceived as a set of abilities aimed to deal with emotional-laden information, as in the ability model proposed by Salovey and Mayer (1997) or, on the other hand, other authors apprehend EI as a group of emotion related dispositions or skills, closer to personality traits, as Bar-On's model (1997) and Goleman's approach (1995). According to Petrides and Furnham (2000) this separation serves to identify two kinds of EIs: ability and trait -also referred to as mixed models-.

Salovey and Mayer's abilities model (Salovey & Mayer, 1990; Mayer & Salovey, 1993; Mayer, Caruso, & Salovey, 1999) has generated more research than any other approach (Fernández-Berrocal & Extremera, 2006). For Salovey and Mayer (1997), EI comprehends:

The ability to perceive accurately, appraise, and express emotion; the ability to

access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (p. 10)

The latest abilities mentioned, as regulation of emotions, would it be developed after the previous ones in so far as they are conceptualized as more complex than the initial abilities as for instance the recognition of emotions.

On the other hand, some researchers developed trait or mixed models, although they were also based on Salovey and Mayer's EI model. Bar-On's theoretical approach to EI represents a removal from the traditional abilities model, conceiving emotional-social intelligence as a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands (Bar-On, 2006). In line with Bar-On, Goleman's model (Boyatzis, Goleman, & Rhee, 2000), aimed to organizations, currently comprehends four essential dimensions: self-awareness, social awareness, self-management, and relationship management. Concurrently to mixed models, Saarni (1999), added a developmental-social approach to the EI construct with her emotional competence theory. The author proposed a set of competences that would encompass what she called an emotional competent person, as for instance "the awareness that the structure of relationships is in large part defined by how emotions are communicated" (p. 5).

Comparing the models, the appraisal and expression of emotion as well as the regulation of emotion abilities, within the abilities model, would be synonymous with self-awareness and self-management competences as well as they are also comprehended in Saarni's approach. However, the ability to access feelings when they facilitate thought is not taken into account specifically in mixed models. In its turn, mixed models broadened the concept of EI introducing social and moral variables to the construct, in line with

developmental models. For further elaboration of the theories, see Matthews, Zeidner, and Roberts (2002).

### **Assessment**

Various scales have been developed in order to properly evaluate EI. Overall, researchers have at their disposal two kinds of scales, in parallel with the classification of EI approaches. Ability models employ performance-like tests whereas trait models developed self-report measures (Trujillo-Flores & Rivas-Tovar, 2006).

The Test Manual for the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT) is a performance-based test that evaluates the four-branch abilities model, providing adequate indexes of validity and reliability (Mayer, Salovey, & Caruso, 2000). Nonetheless, some well-founded criticism is placed on them (Rossen, Kranzler, & Algina, 2007), mostly pointing to the validity of the emotion perception subscale (Roberts et al., 2006) as well as on the scoring protocols -e.g., expert and consensus- (Roberts, Zeidner, & Matthews, 2001). Recently, proponents of the abilities model developed a youth version of the test (Rivers et al., 2012) that could be very useful within the school context.

Regarding self-report tests, Bar-On in 1997 developed the first commercial instrument available to measure EI -trait-, the Emotional Quotient Inventory (EQ-I). It is actually the most used test on EI research and some studies support its validity (Dawda & Hart, 2000) although, likewise MSCEIT, it has endured some criticism about its external validity (Mestre-Navas & Fernández-Berrocal, 2007).

Concurrently to the global EI indicators mentioned, other scales have been used in research in order to assess some of the specific emotion-related abilities. For instance, emotion regulation was evaluated through the Emotion Regulation Profile Questionnaire (ERP-Q) in a study held by Mikolajczak, Nélis, Hansenne, and Quoidbach (2008). For an extensive review of the available scales, see Mayer et al. (2008).

### **Criticism against EI theories**

In addition to the problems derived from the diversity of theories just mentioned, EI concept has been subject of some other criticism. Critics highlight the lack of divergent validity of some of the EI models -specially mixed models- and personality traits (Bastian, Burns, Nettlebeck, 2005; Schulte, Ree & Carretta, 2004) as well as the reliability and validity of the scales used to measure it (Petrides & Furnham, 2000). Nonetheless, problems with EI theories do not end with the criticism that EI researchers exchange with each other. Two additional major problems would be the inconsistency of EI with robust intelligence theories (e.g., Gardner, 1983; Sternberg, 1982) as well as the lack of consideration of the difference between primal and secondary emotions (Lewis, Haviland-Jones, & Feldman, 2010; Turner & Stets, 2007).

Abilities models proponents criticize mixed models since this approach would blend the emotional abilities with values and other constructs as skills (Mayer & Cobb, 2000), thus shifting abilities into competences, making the concept diffuse and less operative. However, the same criticism could be levelled against abilities advocates. According to Gardner's theory (1983) and the more robust theory on intelligence (Castelló, 2002; Sternberg, 1982), intelligence comprehends the representation of information as well as the construed functions -due to the environmental pressures- that operate with these stored images. According to this theory, emotion inner images and their associated functions -intrapersonal intelligence- are in nature different from the images and functions that deals with emotional external information -that is, information about the emotional state of others or interpersonal intelligence-. Accordingly, neural underlying bases are different for the two processes (Ledoux, 2000). Therefore, abilities EI model would comprehend EI as a competence that would include intrapersonal and interpersonal abilities related to the emotion information. That could explain some of the hindrances to the development of the concept as well as it could have

some implications for the education of EI.

Regarding to the second criticism, theories on EI should address the difference between primal and secondary emotions. Primal emotions as fear, anger or joy would affect the neocortex through three different main paths, whereas the neocortex controls the limbic system through just one neural path (Plutchik, 2002). On the other hand, secondary emotions are highly connected to culture –and to the frontal lobe- through child development (Turner & Stets, 2007). Hence, they could be more affected by intellectual abilities, being easier to deal with to, in contrast to primal emotions. That difference it should be taken into account when designing EI educational programs.

### **EI Education**

Emotions had been generally considered as a personal dimension that did not require schooling attention -exceptions noted in the next paragraph-. It was assumed that emotional development would occur according to biological basis as well as through social interaction, specifically within the family domain (Evans, 2002). Thus, families would provide that emotional education (EE) in an unstructured way -if intentionally conducted-, for instance pushing children to restrain their own emotions in order to achieve long-distance goals. Concurrently, modern Western schooling has been basically focused on the teaching of verbal and logical-mathematical contents (Fernández-Berrocal & Ruiz, 2008). In fact, possessing a high IQ level -which is extracted from verbal and logical tasks- has its benefits, considering that high IQ scores correlate with the access to a superior education (Kaufman, Flanagan, Alfonso, & Mascolo, 2006) as well as with the achievement of better jobs and incomes (Lynn & Vanhanen, 2002).

However, to a lesser extent, they have been as well some attempts to bring ED into the schooling system (Dixon, 2012). For instance, Wilderspin in 1840 already advocated for the implementation of moral and affective education within English schools. In Catalonia,

some initiatives were also held, as the schooling paradigm proposed by *the new school* (González-Agàpito, Marquès, Mayordomo, & Sureda, 2002). These initiatives were seeking to improve education, taking into account not only reasoning development. . In essence, ED is, according to Bisquerra (2003):

The educative process, continuous and permanent, that pretends to enhance emotional development as an indispensable complement for the cognitive development ... To this end, are proposed the development of knowledge and abilities about emotions with the aim to train individuals to cope better with life challenges as well as enhance personal and social well-being. (p. 243)

Recently, a renewed interest on ED appeared. Western societies realized that some of the social problems we are enduring could be derived from a poor emotional development (Brackett et al., 2004). Hence, growing criticism about the educational system is arising (Elias, Hunter, & Kress, 2006; Fernández-Berrocal & Extremera, 2005). As Marina (2004) indicated, there is nowadays a feeling of that intelligence as pure cognition has failed in order to achieve person's happiness. In other words, one of the contemporary main concerns is about whether education is fostering the abilities and knowledge necessities to better adapt individuals to their changing environment. Moreover, ED is not provided by families to the extent as it was used to be, due to work pressures and other social factors (Bisquerra, 2003), and youngsters are suffering a variety of psychological and interpersonal problems (Sloan & Kring, 2010), related with poor emotional abilities. However, other social educational problems should not be overlooked as a cause of the mentioned problems. That is, overcrowded classes, lack of resources, and reluctance to tackle the necessary change of the current educational model, amongst others (Albaigés-Blasi & Martínez-Martín, 2013).

According to the mentioned problems as well as seeking to achieve a more holistic development of the person (UNICEF, 2007), communities became increasingly interested in

EI educational programs (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Nowadays almost every emotional educational program is called EI education program, because of the generalization proposed by Goleman (Mayer & Cobb, 2000), without considering the theory underlying the aforesaid programs. In fact, taking the opportunity of this growing popularity, a large number of self-called EI programs have appeared (Zeidner, Roberts & Matthews, 2002). Although many programs might be supported by empirical research, some of them are not. Therefore, it seems reasonable to analyze educational programs in the light of EI research, in order to give information to discriminate amongst the most valid EI programs

### **Guidelines for the development and evaluation of EI programs**

The following guidelines provided should guide educators to detect valid programs as well as to guide in the developing of their own ones. Globally, Zeidner et al. (2002), in an inspiring review, provided a set of parameters that every EI program should embrace. (a) EI programs should be based on a solid conceptual framework –abilities based programs would address the 4 abilities described in the model, whether mixed models based programs would aim to the development of the socio-emotional competences that comprehends the approach-. In essence, programs should not be base on intuitive or over-inclusive views of EI. (b) Specific program goals -and their correspondent operational program objectives- should be determined, targeting the specific components of the EI model underpinning the program. (c) It would be necessary to identify the educational, socio-cultural and developmental context in order to adapt the program to these characteristics such as age, cultural group, teacher characteristics or to the broader community features. Otherwise programs might be unsuccessful. In that sense, it is absolutely necessary to ensure teachers formation on EI programs and train them on the teaching of affective experiences. (d) EI programs should be integrated into the school curriculum, thus blending EI enhancing activities with other ones as

well as holding the programs enough time to be efficient -that is, more than one year (Zins et al., 1997)-. (e) Programs should provide strategies to facilitate generalization in EI abilities and competences to non-school situations, as for instance planning activities across different educational settings. (f) Finally and very important, the program effectiveness assessing should be conducted using robust psychometric sound designs, although the difficulty on doing so within the educational context. Moreover, very few measures have been developed specially addressed to young people -e.g., MSCEIT Youth version (Rivers et al., 2012)-.

On the other hand, within the Iberian Peninsula, the work of Álvarez-González (2001) has been used as a guide for many educational psychologists and researchers to develop EI programs. The authors highlight the importance to adapt the programs to the necessities of the students for whom the program is going to be addressed as well as provide an operational and practical framework for program developers.

### **Emotional Development**

Alongside with the guidelines proposed above, any serious EI educational program should consider the most robust emotional developmental theories developed so far. That is, some emotional abilities are not available until certain age and this information is vital in order to provide students with activities suitable for their capabilities. Various authors proposed emotional developmental stages to consider when developing an EI program (Campos & Barret, 1984; LaFreniere, 2000; Sroufe, 1995; Wallon, 1979). Although most of the emotional developmental theories have not been aimed to the specific study of the EI development, research conducted by Saarni (1999) and Harris (1989) has had more relevance than any other on the study of EI development. Particularly, Saarni proposed a set of emotional milestones, divided into coping, expressive behavior and relationship building. For instance, the emergence of self-awareness would occur up to 12 months to 2 years as well as youngsters “make the distinction between genuine emotional expression with close friends

and managed displays with others” (p. 19) between the ages of 10 and 13 years. At the same time, the awareness of multiple emotions toward the same person does not appear until the age of seven.

### **SEL Programs**

The main EE programs worldwide are the social and emotional learning (SEL) programs (<http://www.casel.org>) developed and exported from the United States -SEAL in the UK-. Basically, the programs seek to enhance the competences of self-awareness, self-management, responsible decision making, relationship skills and social awareness, in line to Goleman’s proposal. The mentioned competences comprehend a set of emotional abilities and cognitive skills, as well as they implicitly or explicitly involve values and ethics content. Within the characteristics palette of SEL programs, some of them take into account the formation of teachers and parents and many of them also address the evaluation of the same programs. In fact, these are necessary issues in order to consider the programs as a SEL program, as a supposed minimum guarantee (CASEL, 2012). SEL examples include the program developed by Lantieri (2008), based on the learning of relaxation-meditation strategies, as well as the promoting alternative thinking strategies program (PATHS), that addresses conflict resolution, emotion regulation and responsible decision making through games and activities specially developed. Activities within the diverse programs are thought to create environment pressures that would give the child the opportunity to develop some of the SEL competences previously mentioned.

On the other hand, it is shocking to realize that Ruler program (<http://ei.yale.edu/ruler/>), developed in Yale University and mentored by Peter Salovey (Brackett, Rivers, Reyes & Salovey, 2012), closely resembles other SEL programs, although supposedly they derive from different theoretical background. Thus, although simple abilities like the recognition of emotions are addressed through one of the four anchors that form the

program, the other three anchors deal with competences like conflict resolution, similar to the SEL proposal. Nonetheless, a few European group researchers have developed programs faithful to the abilities model -e.g., Nelis, Quidbach, Mikolajczak, and Hansenne (2009) in Belgium; Ulutas and Ömeroglu (2007) in Turkey; Ruíz-Aranda et al. (2008)- that showed promising results although exhibiting some flaws in its development and application. The Belgium program is particularly well planned and assessed and it is a fair demonstration of an abilities model based program. They developed activities as role playing as well as used computer programs as METT ([www.paulekman.com](http://www.paulekman.com)), which trains on facial decoding, in order to push students to develop the four abilities included within the abilities model.

In relation to other emotional programs, SEL programs have been the main inspiration behind most of the programs around the world, and many of them borrow ideas and activities from them -e.g., be unaware of yourself: literacy program (Güell, Muñoz-Redon, 1998) or emotional education: program for 3-6 years old (Lopez-Cassà, 2003), in Catalonia-, hence the relevance of the SEL proposal.

Regarding their efficacy, a recent meta-analysis (Durlak et al., 2011) provided strong support to their validity, after studying more than 200 programs in the United States. However, their trans-cultural validity is still to be proven, amongst other criticism about the reliability and validity of the scales used to measure its efficacy (Zeidner et al., 2002).

### **Iberian Peninsula Emotional Educational Programs**

Two main research-poles can be detected through the analysis of the most salient EE programs in the mentioned area. On the one hand, in the South of Spain a group of researchers from the University of Malaga, led by Fernández-Berrocal and Extremera (2005), have conducted an extensive research and developed educational programs following the path of Salovey and Mayer's model. On the other hand, the educational psychology orientation research group (GROP), directed by Bisquerra (2011), promoted various educational

programs in line with mixed models and emphasizing emotional competences in alignment with SEL programs. However, other Iberian universities and researchers are still contributing to the implementation of EI programs in the area -e.g., González-Hermosell & Merchán-Romero (2011) in Badajoz and Portugal; Guridi (2007) in the Basque Country; Pérez-González (2003) in Madrid; Salmurri (2004) in Catalonia; Vallés & Vallés (2003) in Valencia-. For a more detailed analysis of programs held in Spain, see Bisquerra et al. (2012). Broadly speaking, Andalusian programs would be much influenced by the abilities model whereas in the rest of the Peninsula, programs would be based on mixed models. Moreover, EI programs for elderly (Soldevila, 2007) and inmates (Filella et al., 2008), addressed basically to managing emotions, have been also held within Catalonia, alongside with plenty of programs that do not bear much relation to scientific research -not considered in this review-.

**Andalusian programs.** Although a minority compared with SEL programs, programs faithful to the abilities model have been developed successfully in the University of Malaga. The efforts resulted in the application of EI educational programs as the *Intemo* project (Ruiz-Aranda et al., 2013; Ruiz-Aranda, Cabello, et al., 2012; Ruiz-Aranda, Salgero, et al., 2012) and other interesting programs (Guil-Bozal, Mestre-Navas, González-de la Torre & Foncubierta-Delgado, 2011). Although *Intemo* project is aimed to the problem of drug consumption it does specifically address the improvement of the four abilities comprehended in the abilities model. Thus, it comprehends organized activities as an emotional diary –to address emotional perception-, an emotional thermometer -seeking to enhance emotional assimilation abilities-, and emotional domino -to improve how emotions relate to each other- or group working activities -to address emotional regulation in others-. Comparison with SEL programs should lead to the idea that, although based on the abilities theoretical model, activities comprehended in the program bear a similarity to SEL activities. The same happens

with the program proposed by Guil-Bozal et al., although this program is remarkable in the sense that takes into account Wallon's (1979) emotion developmental theory. However, the authors could have been based on more robust developmental theories, closer to the EI construct, as the one developed by Saarni (1999).

In contrast, and as an example of a program with serious flaws, the program applied in Badajoz and Portugal (González-Hermosell & Merchán-Romero, 2011) scarcely mentions any theoretical source. In addition, is based on the development of EI (DIE) program of Vallés-Arandiga and Vallés-Tortosa (2003), which is less robust than other models available in the Peninsula. The six competences they propose to develop correspond to a mix of emotional-social competences, being difficult to know what is being addressed exactly. For instance, the authors mention empathy and the ability to recognize emotions in others as equal concepts (p.308), although empathy is a more global construct. Moreover, they evaluate the program through subjective opinions of the teachers.

**Catalan programs: GROU.** The great majority of Catalan EI educational programs are headed or influenced by Bisquerra (2012) and the GROU. They are clearly in line with Goleman's proposal as much for its regular direct citation to him (Bisquerra, 2003) as for the resemblance of the theoretical body proposed with EI Goleman's view. Thus, the emotional curriculum suggested by Bisquerra (p.247) includes aspects as self-confidence, conflict resolution, life abilities, flow or well-being, competences equally encompassed by EI mixed models as well as by social intelligence (Petrides, Mason, & Sevdalis, 2011) construct. Concurrently, the educational activities and dynamics developed by the GROU (2009; Lopez-Cassà, 2003) are derived in many cases from SEL programs, as for instance the activity the emotion thermometer, which resembles the same activity proposed by the PATHS –which, in its turn, it is also applied in the Intemo project-. In relation to the evaluation, validity is assessed through the questionnaire of emotion education [CEE] (Álvarez-González, 2001)

developed by the group itself, although not much used outside group proposals.

In relation to the abilities model, emotional management and knowledge and recognition about emotions are addressed directly through activities as relaxation techniques and *How am I today* -to enhance emotion self-awareness-, although that does not happen with the other two abilities proposed in the Salovey and Mayers' model.

Positively, most of the GROP programs and activities reviewed are specially designed for specific groups and centers. That is, first of all they study the socio-cultural peculiarities of an specific school in order to adapt the program to these peculiarities, as for instance the percentage of immigration or the educational problems that predominate in that specific school. Thus, programs increase their efficiency, according to Álvarez-González (2001) and Durlak et al. (2011).

EI programs across Catalonia had been spreading quickly the last decade. A great number of schools had applied programs with the guidance of GROP, as for instance Pinyana School (Alfarràs, Lleida) or CEIP Bernat de Riudemeia (Argentona). Moreover, some other schools are currently applying new programs, as in the Andersen school in Vic. Casellas, (personal communication, February 7, 2014) informed about the good program's acceptance as well as the motivation generated after addressing, once for all and in a structured manner, the emotional development of the students and teachers. However, more often than desirable, the evaluation of the programs is based on subjective opinions, without applying proper testing.

### **EI program commonalities**

As an integration of the mentioned information about EI educational programs, two conclusions can be drawn. Firstly, activities within the programs are quite the same independently of the theoretical model underlying the program. That is, whether the program aims to enhance the four abilities of the Salovey and Mayer's model whether aims to develop

emotional-social competences, they try to achieve their goal through similar activities. Thus, role playing, emotional thermometer, relaxing techniques, group session discussions, among the most used ones, are developed in order to achieve both programs goals. Bearing in mind that they provide data about the efficiency of their programs -as stated previously-, it could be drawn the conclusion that during the activities specific pressure conditions are created for which the students are pushed to develop abilities -whatever the nature of them- shared with both models. Therefore, improvement on EI abilities would be the cause in both cases. Nonetheless, the same variation could be explained due to the development of ethical values or the creation of specific attitudes, since most of the activities carry with a strong socio-cultural content. How could we know what is the cause of the improvement of EI, trait or ability, if the activities aimed to enhance EI are the same for both models and, at the same time, the activities create pressures on different directions on students? An answer is going to be provided in the discussion.

Secondly, most of the programs are aimed to solve socio-educational problems and, thus, they are not directly addressed to improve EI. For instance, Intemo Project, which tries to be an example of an abilities model based program, is addressed to the control of drug abuse. The same happens with most of the SEL programs, aimed to fight against bullying and other socio-educational and interpersonal problems. Both mentioned aspects inform us about the intimate relation between emotions and the social world.

### **Educational Context versus Models of EI**

Against the background described above, EI researchers together with educators should ask themselves why the most important educational programs on EI are not based on the EI abilities model, since it has proven itself as the more robust one. At first sight, it seems unreasonable to base EI programs on mixed models because of the validity and reliability problems already pointed out in the present review. However, a closer look to the educational

peculiar context might shed light on the matter.

On the one hand, since the late 70s, a competency-based education has been promoted and applied in order to make learning assessment easier and, more important, to bring education closer to the skills and knowledge required outside the school (Hall, 1976). That supposed a major theoretical change in the way educational processes were conducted and planned, in contrast to old approaches centered on the mere acquisition of theoretical knowledge. The competence construct would comprehend a cluster of mental abilities as well as personality traits, knowledge, skills and social and moral values (Burke, 1989), which are in close connection with the environmental demands.

In parallel, the constructivist educational model appeared the last century -although it has its roots in older Greek and Chinese debates about education (Zinzhong, 2000)-. At least theoretically, constructivism is the mainstream of the Western schooling system. The approach is characterized by an active implication (Bruner, 1996) of the students in the learning process, which is built on the basis of their specific previous existing knowledge and abilities. Vigotsky (1978) stressed the importance of social interactions in the mentioned learning process, developing what was called social constructivism. Thus, the learning process has to take into account not only the previous net of knowledge and abilities of every person, but also the moral and social values underlying the teacher-student interaction (Cooperstein & Kocevar-Weidinger, 2004). That is, the previously acquired student competences, rather than just her or his abilities, would be the keystone of learning.

Considering the information provided above, as Mathews, Zeidner and Roberts (2002) cleverly formulated, the nature of emotional competencies (Bar-On, 2006; Saarni, 2000), in contrast to the more restricted meaning of EI abilities (Salovey & Mayer, 1990), fit better with the particular educational context aforementioned. Hence, mixed models have been the theoretical base for EI programs although the model's problems mentioned previously.

Another reason for the application of EI educational programs based on EI mixed models is that they actually work (Durlak et al., 2012). Nevertheless, the very nature of EI competences makes difficult to assure what is the cause of the positives changes observed after the application the programs. It might be due to the assimilation of moral values involved in the activity as well as to the emotional competence itself. What is more, not only moral or socio-cultural factors assimilation could cause the changes but also the improvement of EI abilities that, according to various authors (e.g., Mayer & Salovey, 1999), lies beneath the EI competences. It might be that EI mixed models-based programs have shown efficacy just because the activities addressed to competences development were, in reality, being enhancing core EI abilities.

### **Machiavellian risk**

In connection with the aforementioned reasons, it must be added another reason coming from philosophy. That is, education-based on competences would avoid the risks to enhance emotional abilities without associated values and moral contents (Marina, 2005), which might be unsafe in the sense that students could be given a powerful weapon without the values to use it properly. Education, as a development of person's abilities -whatever they may be- does not occur in the vacuum. It has a purpose, a meaning, outside of the development itself. Future generation education implies giving youngsters the tools to be happy, to enhance their well-being and to protect them from psychopathology (Delors et al., 1996; Generalitat de Catalunya, 2000). The mentioned goals are more in line with an idea about EI as the one proposed by mixed models, which integrate moral values to the idea of EI.

### **Future proposals**

Firstly, EI construct should evolve in the direction marked by EI robust models -as Mayer and Salovey (1998)-, and not by social and economical trends. Concurrently, EI

models should seek a better alignment with robust intelligence research, in order to properly define EI instances and functions. Hence, EI could reveal itself as an operational construct, easier to assess and to apply to activities aimed to enhance EI abilities on humans. In that sense, it might be advisable to specify that EI it would actually comprehend two kind of intelligences, intra and interpersonal intelligence (Gardner, 1983), thus EI tests should be designed according to these two different processes dealing with emotional-laden information.

Secondly, within the educational field, two proposals are made. On the one hand, EI programs strictly based on the abilities model should be developed -e.g., Nelis et al. (2009)-, isolating EI abilities from moral values and other social-competences. This task is especially problematic in the sense that the emotional world is intimately linked to the social world (Saarni, 1999). Nevertheless, after partially accomplishing the first proposal about EI construct improvement it would be feasible to apply such programs.

On the other hand, assuming the first proposed path shows itself unworkable, at least researchers in conjunction with educators should develop valid and reliable instruments to assess the abilities underlying the activities as well as developing instruments that evaluate the moral and cultural inextricable issues. That is, to test values improving, ethical knowledge enhancing and EI (abilities and trait), in order to realize which one is a great contributor to the desired outcomes. In its turn, that might prove the existence of the EI construct or, at least, some of its proposed abilities, coming full circle of EI educational programs with EI research.

We should not forget that variations on intelligence functional resources, after most of the programs reviewed, and according to Nestler and Goldbeck (cited in Castelló and Cano, 2011), could not occur due to the participation in the activities. On the contrary, this involvement might just build socially desirable behavioral patterns. The improvement of EI

would occur after, as in other intelligence forms, articulating the available resources into functions, which is not clear to occur if studies do not assess separately the different variables comprehended in the emotional learning.

Not addressing the mentioned issues could result in a devaluation of the EI construct after years of applying programs with no successful results, giving to the society the wrong impression that they are not useful and subtracting credibility to the EI construct.

### **Study limitations**

The present review explored the relationship between EI research and the self-called EI educational programs. However, as analysis advanced, new fronts opened up –e.g. emotional development or emotional clinical psychology or competences-based education-, making difficult to take all of them into account in an appropriate way. Thus, review has been, in some of these fronts, more superficial than it was desired. Others, as the exploration of the relationship of EI with psychopathology have been almost omitted, although they could have provided an interesting insight for EI educational programs. The limitation of this review could be extended to those limitations on the field of EI education: a better integration of the knowledge provided by neighboring fields would be advisable in order to improve EI programs.

At the same time, further analysis of the EE programs reviewed may be desirable, although due to space restrictions the author opted to make a cursory review about them. Concurrently, in-depth analysis of some of the tasks involved in EI programs should have been conducted in order to point out the actual abilities and competences that might be underlying them.

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