Perceived effectiveness of emotion regulation strategies in sadness and joy[*]

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This study examines the use of 43 emotion regulation strategies in episodes of joy and sadness in self- and interpersonal regulation conditions. After recalling interpersonal experiences of sadness and joy, 324 college students replied to the Questionnaire on emotional intrapersonal and interpersonal regulation (CIRE-43) *and to a scale of perceived attainment of adaptive goals as a result of the use of the strategy in the episode (perceived effectiveness). As expected, the participants reported regulation of the positive emotion, but with less frequency than in the case of sadness; similar to former studies, self-regulation was found to be more frequent than interpersonal regulation. The analysis of the correlation pattern between perceived effectiveness and the different strategies shows that participants consider different strategies to be adaptive in the different conditions: depending on the emotion (sadness or joy) and on the target (self-regulation or regulation of the other person). The strategies that imply personal growth were considered to be more adaptive overall.*
Keywords: *Self-regulation, interpersonal emotion regulation, joy, sadness.*

Efectividad percibida en estrategias de regulación emocional de la tristeza y la alegría

Este estudio examina el uso de 43 estrategias de regulación en episodios emocionales de alegría y tristeza en una condición de autorregulación y

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regulación interpersonal. Tras recordar las experiencias interpersonales de tristeza y alegría, 324 estudiantes universitarios respondieron al Cuestionario sobre la Regulación Emocional Intrapersonal e Interpersonal (CIRE-43) *y una escala de logro percibido en la consecución de las metas emocionales después de usar la estrategia en dichos episodios (eficacia percibida). Como era de esperar, los participantes informaron regular la emoción positiva, pero con menos frecuencia que la tristeza; similar a estudios anteriores, la autorregulación es más frecuente que la regulación interpersonal. El análisis del patrón de correlación entre la eficacia percibida y el uso de diferentes estrategias muestra que los participantes consideran diferentes estrategias como adaptativas en las diferentes condiciones: dependiendo de la emoción (tristeza o alegría) y del objetivo (autorregulación o regulación de la otra persona). Las estrategias que implican el crecimiento personal fueron consideradas como las más adaptativas.*

     Palabras clave: *autorregulación, regulación emocional interpersonal, alegría, tristeza.*

Emotions can provide important information about the state of one's interactions with the world. Sadness makes the individual focus on a past loss, analyze the reasons for it, change his or her plans and ways of interpreting life, working either to make people withdraw from the environment and seek isolation or spurring them seek to comfort in others, thus forming bonds with other human beings. Joy, generally, enhances creativity and creative thinking, though not necessarily critical thinking. It fosters optimism and self-esteem and moves the individual toward a social sharing of his or her feelings. If it were not for painful feelings (fear, anger, shame, etc.), we would not know that we were in need of something, and we would not be compelled to make changes to our immediate or long-term circumstances (Rasmussen, 2010). However, when emotions are very intense or inadequate with respect to a given situation, they can be maladaptive and disruptive of human relationships and ultimately lead to psychological problems. Therefore, emotions have to be regulated.

An important aspect of emotion regulation is the inclusion and consideration of both self-regulating processes and interpersonal regulation (Niven, Holman, & Totterdell, 2012), and there is an increasing emergence of studies that consider regulation from these two perspectives (Rimé, 2009). Regulation of affectivity and the negative emotions of others through modification of the situation, reappraisal, low suppression and regulated expression, and to a lesser extent through redirection of attention or distraction, is frequently oberserved and is associated with phenomena such as the perceived adjustment after work stress, indicators of wellbeing and a good relationship with the individual who was the author of the interpersonal regulation (Aldao, Nolen-Hoeksema & Schweizer, 2010; Gross & John, 2003; Little, Kluemper, Nelson, & Gooty, 2011; da Costa, Páez, Oriol, & Unzueta, 2014).

However, as with self-regulation, strategies of interpersonal regulation of emotions have shown different degrees of effectiveness depending on the type of emotion experienced within the emotional situation (Mikolajczak, Tran, Broderidge & Gross , 2009; Oberst, Company, Sánchez, Oriol, & Páez, 2013). These data lead us to think that different strategies are also employed in interpersonal regulation according to whether the experience implies positive or negative affectivity.

The majority of studies on emotional regulation have given greater priority to regulation (reduction or modification) of negative affectivity than to positive (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010), maybe due to the common belief that positive emotions do not need to be regulated. However, affective regulation of positive (i.e. pleasant) emotions is not an infrequent phenomenon (Larsen & Prizmic, 2008), though people do so to a lesser degree than with negative emotions (Fredickson, 2009; Páez, Martínez-Sánchez, Mendiburo, Bobowik, & Sevillano, 2013). Thus, due to the influence that the regulation of positive affect exerts on personal wellbeing, the carrying out of research focused on this area would seem to be of great interest (Tugade & Fredrickson, 2007).

Current study

The objectives of the present study are: a) to establish which strategies individuals use to regulate the emotion of joy as opposed to sadness, and the degree to which they are considered effective (functional) for the attainment of adaptive goals; b) to compare the use of strategies for self-regulation and interpersonal regulation in the two emotions; on the basis of previous studies (Company et al., 2012; Oberst et al., 2013; Páez, Martínez-Sánchez, Sevillano, Mendiburo, & Campos, 2012; Quoidbach, Berry, Hansenne, & Mikolajczak, 2010), it is assumed that individuals use fewer strategies for regulation of joy than for regulation of sadness, but more strategies for self-regulation than for interpersonal regulation in both emotions; c) to analyze if the functionality scale developed by Páez et al. (2013) has the same internal structure (unifactorial) in episodes of joy as in episodes of negative emotions; it is assumed that in response to sadness there is an attempt to decrease the emotion perceived as unpleasant, while in the case of joy, a pleasant emotion, there would be a corresponding attempt to maintain or even increase the emotion.

Materials and methods

Participants

The sample comprised 324 Spanish speaking college students (69% female) from four universities in Spain (Universidad Ramon Llull, N= 20; Universidad de

Lleida, N= 131; Universidad Autónoma de Madrid, N= 110) and Chile (Universidad Autónoma de Chile, N= 63), all of whom were second year Psychology undergraduates, with an average age 20.42 years (dt= 2.62).

Instruments and procedure

Questionnaire on emotional intrapersonal and interpersonal regulation (CIRE-43, Company et al., 2012)

The CIRE consists of 43 items of dichotomous answers (yes, I used this strategy – no, I did not use this strategy), both for the condition of self-regulation and the condition of interpersonal regulation. Each item represents a strategy that is first identified by a name and then by a behavioral example. Example of item 22 (*rationalization*): Condition of self-regulation: "I thought it was a fact of life". Condition of interpersonal regulation: "I told him/her that it was a fact of life"). 28 of these strategies are classified as "adaptive" (their use allows for the achievement of adaptive goals) and 15 as "non-adaptive" (their use does not improve or even worsens the state of mind) with regard to episodes of negative emotions (see Company et al., 2012). Since the questionnaire had been developed for its use in episodes of anger and sadness, for the purposes of this study, some of the 43 items were adapted to the emotion of joy; for example, "self-criticism" was adapted to "taking of responsibility". The original and the modified items are shown in the first column of tables 1, 2, 4 and 5.

Perceived attainment of adaptative goals in the episode (Functionality Scale, Páez et al., 2012)

This scale measures the functionality (perceived effectiveness) of intrapersonal and interpersonal strategies by means of seven Likert-type items from 1 (little or no change) to 10 (changing greatly), inquiring about the extent to which by the end of the episode the respondents had succeeded in achieving some specific adaptive goal or goals after the end of stressful events, goals which might include: changing from displeasure to greater pleasure; understanding, explaining and being able to predict the situation or conflict; controlling the emotional experience of the situation; controlling or resolving the problem associated with the situation, gaining greater control over it; improving relations with other people; improving their personal image vis-à-vis other people. The scale of adaptive goal achievement by means of regulation has been used in previous studies with satisfactory reliability and factors analysis found one dimension (Páez et al., 2013).

The participants received a dossier and responded in a self-administered manner in the context of a practical session on emotions within a college class. Participation in the activity was mandatory, but responding to the questionnaire was voluntary, and students were instructed that they could stop at any point in the exercise, especially the part on the sadness condition. They were asked to remember and write down an episode in which they had experienced one of the two emotions (joy or sadness) over the past 12 months. Then, they were asked to answer the CIRE-43 regarding this experience, as well as to complete the functionality scale. The process was then repeated for the other emotion. The emotions were counterbalanced to avoid effects of order; order showed no effect on outcomes. Thus, data from each participant were obtained for four conditions: Joy-Self-regulation (J-SR), Joy-Interpersonal Regulation (J-IPR), Sadness-Self-regulation (S-SR), Sadness-Interpersonal Regulation (S-IPR)

Data Analysis

Results were analyzed using the SPSS software (*Statistical Package for Social Sciences 20.0*). In order to verify the factor structure of the functionality scale, an exploratory factor analysis (EFA) of this scale was performed for each of the conditions, joy and sadness. To assess the differences between the strategies used in self-regulation and those employed in interpersonal regulation in the episode of sadness, McNemar's non-parametric test was used for each strategy. This test was also used to compare the differences in use for self-regulation and interpersonal regulation between joy and sadness. To verify the functionality of the use of the strategies, Spearman correlation coefficients were calculated between each respective strategy and its scores on the functionality scale (for each of the four conditions).

Results

Descriptive statistics

Results (tables 1 and 2) show that all strategies were used in both emotions and in all conditions. For J-SR (tables 1 and 2, columns 2 and 3), 13 out of 43 were used by more than 50% of the participants, and for J-IPR, only *seeking emotional support, cognitive reappraisal* and some *growth* strategies. Columns 4 and 5 of tables 1 and 2 show the percentages of use in sadness. For S-RS, the use of 23 out of 43 strategies was reported by at least 50% of the participants, and for S-IPR, 17 out of 43 strategies reached this threshold.

TABLE 1. FREQUENCY OF THE USE OF *IMPROVE* STRATEGIES AND COMPARISON OF THE CONDITIONS.

Strategies	% use J-SR	% use J-IPR	% use S-SR	% use S-IPR	McNemar J-SR vs J-IPR	McNemar J-SR vs S-SR	McNemar J-IPR vs S-IPR
IMPROVE							
Direct resolution	44	47	65	63	n.s.	.000	.000
Seeking emotional support[1]	69	63	80	75	n.s.	.002	.001
Seeking instrumental support	32	39	55	66	.004	.000	.000
Seeking informative support	42	25	53	44	.000	.006	.000
Planning	46	48	64	69	n.s.	.000	.000
Altruism	40	28	61	34	.000	.000	.045
Mediation	18	19	28	26	n.s.	.000	.010
Negotiation	33	34	42	51	n.s.	.007	.010
Rituals	10	14	22	18	.002	.000	n.s.
Cognitive reappraisal	64	61	65	62	n.s.	n.s.	n.s.
Growth:							
- discovering strength	52	52	66	66	n.s.	.000	.000
- spiritual growth	19	16	26	21	n.s.	.007	n.s.
- discovering priorities	63	53	57	50	.000	n.s.	n.s.
- discovering opportunities	75	62	51	53	.000	.000	.010
- valuing support	69	60	80	67	.001	.000	.015
- becoming compassionate	59	42	63	45	.000	n.s.	n.s.
Distraction	42	38	61	62	n.s.	.000	.000
Seeking information	36	28	43	37	.001	.005	n.s.
Rationalization	27	28	56	43	n.s.	.000	.000
Praying	19	13	29	17	.000	.001	.005
Active physiological regulation	31	25	52	42	.000	.000	.000
Acceptance	70	50	65	65	.024	n.s.	.046
Self-comfort	53	49	34	39	n.s.	.000	.002
Self-control[3]	53	46	73	64	.003	.000	.002
Postponing the response	22	21	34	29	n.s.	n.s.	n.s.
Opposite emotions[4]	69	60	51	52	.000	.000	.013
Regulated expression	55	51	59	59	n.s.	.000	.028
Confrontation	44	41	38	42	n.s.	n.s	.012

Notes: * $p<.05$; ** $p<.01$; *** $p<.001$; SR= self-regulation; Items changed in condition of joy: 1: Share the emotion; 2: self-reward; 3: control; 4: joking; 5: taking responsibility; 6: bearing responsibility on others.

TABLE 2. FREQUENCY OF THE USE OF *WORSEN* STRATEGIES AND COMPARISON OF THE CONDITIONS.

Strategies	% use J-SR	%use J-IPR	% use S-SR	% use S-IPR	McNemar J-SR vs J-IPR	McNemar J-SR vs S-SR	McNemar J-IPR vs S-IPR
WORSEN							
Psychological abandonment	15	13	38	22	n.s.	.000	.004
Behavioral avoidance	14	11	38	33	n.s.	.000	.000
Social isolation	07	05	21	09	n.s.	.000	.050
Self-criticism [5]	41	32	40	19	.003	n.s.	.000
Blaming others [6]	18	15	29	22	n.s.	.000	.008
Wishful thinking	27	21	54	39	.014	.000	.000
Denial	12	11	32	11	n.s.	.000	n.s.
Rumination	55	44	72	29	.000	.000	.000
Social comparison below	29	27	46	43	n.s.	.000	.000
Social comparison equal	44	32	61	52	.000	.000	.000
Social comparison above	26	25	37	40	n.s.	.000	.000
Passive physiological regulation	22	19	34	24	n.s.	.000	n.s.
Inhibition	17	12	45	19	.008	.000	.003
Venting	43	41	62	55	n.s.	.000	.000
Suppression	17	13	40	17	.040	.000	n.s.

Notes: * $p<.05$; ** $p<.01$; *** $p<.001$; SR= self-regulation; Items changed in condition of joy: 1: Share the emotion; 2: self-reward; 3: control; 4: joking; 5: taking responsibility; 6: bearing responsibility on others.

Comparison between conditions

As shown in column 6 of tables 1 and 2, significantly more strategies are used for J-SR than for J-IPR. In both self-regulation and interpersonal regulation, significantly fewer strategies are used in joy than in sadness (tables 1 and 2, column 7 and 8). In self-regulation, only the strategies *discovering priorities and opportunities* and *experiencing opposite emotion/joking* showed a more frequent use in joy. Regarding the use of interpersonal regulation strategies, there were also many differences observed between the two situations, with the strategies *discovering priorities*, *self-comforting*, *opposite emotions/joking*, *self-criticism/ taking responsibility,* and *ruminating* displaying more frequent use in situations of joy.

Factor analysis of the functionality scale

Prior to calculating correlations between use of strategies and the functionality scores, an exploratory factor analysis (EFA) was performed to verify that the factor structure of the instrument was the same for both emotion conditions. Sampling adequacy was verified with the Mayer-Olkin measure of sample adequacy (KMO = .93). Bartlett test of sphericity (χ^2= 1035.17; *p*<.001) showed a significant relationship between the variables and the viability of the application of an exploratory factor analysis. Then, for the four conditions (S-SR, S-IR, J-SR, J-IR) analyses of the main components were performed with Varimax rotation and Kaiser.

Results show that the items of the functionality scales were grouped differently for the two conditions of sadness and the two conditions of joy, producing a unifactorial solution for sadness and a bifactorial result for joy. The factor loadings are shown in table 3.

In the condition of J-SR the items 2, 3, 6 and 7 (displeasure/increase of pleasure, controlling emotional experience, improving relationships with others and self-image) can be grouped into a dimension of regulated experience and expression or "SHARING emotion"), and items 1, 4 and 5 (*decreasing intensity; understanding what happened; controlling or solving the problem associated with the situation*) into a dimension of control or "CONTAINMENT of the emotion"). In the condition of J-IR, there was a stronger factor loading of item 3 in CONTAINMENT, but with a high secondary factor loading in SHARING, so it was decided to maintain the same structure in both cases.

The Cronbach alpha values of the functionality scale for all four conditions were very satisfactory. Sadness: condition S-SR =.88; condition S-IPR =.88; joy: condition J-SR =.77 (subscale SHARING) and =.76 (subscale CONTAINMENT); condition J-IPR = .69 (subscale SHARING) and =.75 (subscale CONTAINMENT).

TABLE 3. FACTOR LOADINGS OF THE FUNCTIONALITY SCALE FOR JOY AND SADNESS.

| | Joy | | | | Sadness | |
| | *Self-regulation* | | *Interpersonal Regulation* | | *Self-regulation* | *Interpersonal Regulation* |
	Factor I	Factor II	Factor I	Factor II	Sole factor	Sole factor
Changing intensity	.078	**.813**	.059	**.569**	.750	.784
Changing dis/pleasure	**.650**	.278	**.702**	-.029	.769	.799
Understanding	**.631**	.287	**.469**	**.690**	.733	.650
Controlling	.187	**.742**	.171	**.883**	.767	.730
Solving	.527	**.643**	.150	**.897**	.763	.824
Managing relations	**.853**	.120	**.786**	.351	.775	.812
Image management	**.854**	.072	**.860**	.232	.768	.790

Use and functionality of strategies

Tables 4 and 5 shows the Spearman rho correlations between each strategy and the functionality scale. In the case of de J-SR and J-IPR, the correlations between strategies and subscales (SHARING and CONTAINMENT) were calculated, while in the conditions S-SR and S-IPR the whole scale was used. In the condition of self-regulation of sadness (S-SR), *negotiation, cognitive reassessment,* different strategies associated with personal growth (*discovering strengths, discovering priorities, discovering opportunities), active physiological regulation, acceptance, self-control and delay of response* were positively associated with functionality. For S-IPR, *planning, cognitive reappraisal discovering priorities, opposite emotions, confrontation, social comparison with peers (equal) and below*, were positively associated with functionality. In sadness, all strategies rated as functional by the participants were from the adaptive group ("improve emotion"). There was no correlation between strategies classified as non-adaptive ("worsen emotion") and functionality. Only the two strategies *social comparison by peers* and *below* (classified as non-adaptive/ worsen emotion) were considered to be functional by the participants (significant positive correlation between strategy and functionality).

With regard to joy, in the self-regulation condition (J-SR), the use of several adaptive strategies of *growth*, as well as *confrontation, self-criticism/taking responsibility for oneself, blaming others/placing responsibility on others,* and *venting* were positively associated with the functionality of SHARING this emotion. In contrast, *avoidance* was negatively associated with sharing the emotion. CONTAINMENT was associated with the following strategies: several strategies of *growth,* and *venting*.

TABLE 4. CORRELATIONS BETWEEN *IMPROVE* STRATEGIES AND FUNCTIONALITY SCORES.

Functionality	Joy				Sadness	
	Self-regulation		Interpersonal regulation		Self-regulation	Interpersonal regulation
Strategies	Sharing rho (N=324)	Containment rho (N=324)	Sharing rho (N=324)	Containment rho (N=324)	Unifactorial functionality scale rho (N=324)	rho (N=324)
IMPROVE						
Direct resolution	.010	.002	.135	.023	.057	.085
Seeking emotional support[1]	.049	-.046	.170*	.015	.046	.095
Seeking instrumental support	.015	-.004	.111	-.021	-.005	.115
Seeking informative support	.064	-.064	.138	.063	.002	.012
Planning	.061	.036	.168**	.047	.073	-.037
Altruism	.087	.038	.113	.046	.103	.144*
Mediation	.058	.018	.104	.054	.079	.040
Negotiation	.103	.048	.149*	.023	.142*	.073
Rituals	.048	.029	-.045	.046	-.056	-.046
Cognitive reappraisal	.127*	.034	.003	.074	.137*	.188**
Growth:						
- Discovering strengths	.108	.109*	.081	.137*	.020	.020
- Spiritual growth	.065	.073	-.016	.062	.069	.095
- Discovering priorities	.058	.069	.102	.114*	.195**	.167*
- Discovering opportunities	-.057	.145**	.160*	.076	.150**	.131
- Valuing support	.081	.067	.118	.136	-.004	.020
- Becoming compassionate	.012	.024	.119	.085	.051	.094
Distraction	.034	.031	.107	.113*	.087	-.031
Seeking information	.050	.037	.076	.080	.037	.101
Rationalization	-.003	.045	.065	.101	-.025	-.022
Praying	.053	.034	.090	.033	-.074	-.076
Active physiological reg.	.126*	.095	.005	.126*	.118*	.079
Acceptance	.016	.019	.078	.089	.106	-.004
Self-comfort[2]	.087	.055	.165*	.113*	.141*	.079
Self-control[3]	.165**	.042	.153*	.100	.118*	.044
Postponing the response	.112*	.059	.125	.054	-.117*	.086
Opposite emotions[4]	.106	.043	.100	.104	.150**	.194**
Regulated expression	.100	.009	-.015	.094	.042	.050
Confrontation	-.020	.087	.101	.176**	.107	.143*

Notes. * *p*<.05; ** *p*<.01; ***p*<.001; Items changed in condition of joy: 1: Share the emotion; 2: self-reward; 3: control; 4: joking; 5: taking responsibility; 6: bearing responsibility on others.

TABLE 5. CORRELATIONS BETWEEN *WORSEN* STRATEGIES AND FUNCTIONALITY SCORES.

	Joy				Sadness	
Functionality	Self-regulation		Interpersonal regulation		Self-regulation	Interpersonal regulation
Strategies	Sharing	Containment	Sharing	Containment	Unifactorial functionality scale	
	rho (N= 324)	rho (N= 324)	rho (N= 324)	rho (N= 324)	rho (N= 324)	rho (N= 324)
WORSEN						
Psychological abandonment	-.033	-.032	.025	-.065	-.101	-.109
Behavioral avoidance	**-.115***	.039	.011	-.037	-.106	-.113
Social Isolation	-.041	.032	-.015	.000	-.048	.020
Self-criticism[5]	**.127***	.078	.004	.075	.006	-.012
Blaming others[6]	**.138***	-.013	.012	.037	.001	.044
Wishful thinking	-.025	-.093	.019	.012	.046	-.123
Denial	-.014	-.023	.043	-.034	-.036	-.044
Rumination	.012	.055	.065	.023	-.084	.106
Social comparison below	-.007	.047	.062	.099	-.007	**.191****
Social comparison equal	-.037	.068	.076	.107	.055	**.146***
Social comparison above	-.005	.026	.028	.090	.047	.031
Passive physiological regulation	.005	-.016	.042	-.035	-.085	-.022
Inhibition	.061	.055	.077	.055	.005	-.047
Venting	**.115***	**.129***	.123	**.149****	.019	.074
Suppresion	.025	.070	.011	.078	.082	.039

Notes. * $p<.05$; ** $p<.01$; ***$p<.001$; Items changed in condition of joy: 1: Share the emotion; 2: self-reward; 3: control; 4: joking; 5: taking responsibility; 6: bearing responsibility on others.

For the condition J-IPR, the use of *seeking emotional support (share the emotion), planning, negotiating, discovering opportunities, self-comfort/self-rewarding* and *controlling* was positively associated with making others share in one's joy (SHARING). For the condition J-IPR, the strategies *discovering strengths, distraction, active physiological regulation, acceptance, confrontation,* and *venting* were correlated with CONTAINMENT.

Discussion

The main objectives of this study were to analyze the suitability of CIRE-43 for the study of regulation of joy, both intrapersonal and interpersonal, to determine which strategies for the regulation of joy are considered adaptive by the participants, and to compare their functionality for in the regulation of joy and sadness, respectively.

Frequency of use

Chief among the results, it should be noted that participants not only use a wide variety of strategies to regulate negative emotions, but also use a wide variety of strategies to regulate positive emotions. Most of the studies on emotional regulation have focused on negative affectivity (Aldao, Nolen-Hoeksema, & Schweizer, 2010), and this could be due to the fact that most of the emotional episodes mentioned by the individuals involve negative affectivity, while episodes of positive affectivity may not be remembered in the same way; also, negative emotions require more management than positive ones (Paéz et al., 2013). Only the strategies of *discovering opportunities, acceptance, opposite emotions and self-criticism* showed a higher use in the self-regulation of joy. These results are consistent with other studies showing that the use of humor and affection were higher in regulation of joy than in anger and sadness (Páez et al., 2013); similarly, growth for discovering new opportunities was higher in episodes of change of positive valence than in negative (Páez et al., 2013). With regard to interpersonal regulation, only *self-comforting, self-criticism* and *rumination* were used more often to regulate emotions in others in the case of joy than in sadness.

Functionality scale

Secondly, it was observed that unlike the unifactorial functionality scale that has been found in studies of negative emotions (Páez et al., 2012), here the emotion of joy displayed bifactorial behavior (factors SHARING and CONTAINMENT) in both the exploratory analyses of the conditions of self-regulation and

inter-regulation. This suggests that in negative emotional episodes, the decrease in intensity and displeasure, control of the experience and intrapersonal goals go hand in hand with the goals of regulation of the relationship with others and the improvement of one's self-image, while in episodes of joy, intrapersonal goals of control of the experience and emotional situation differ from interpersonal concerns regarding the improvement of relationships with others and of self-image, which combine with the increase in pleasure in a regulated expression dimension.

Functionality of strategies

In regard to sadness, it was generally confirmed that the emotion regulation strategies that had been considered adaptive in a previous study (Oberst et al., 2013) correlated with indicators of functionality, i.e. the perceived attainment of adaptive goals. As in the study by Oberst et al. (2013), strategies of social comparison, classified as non-functional (they worsen mood and emotions) were considered functional in the interpersonal regulation situation. Our results also suggest that in the case of inter-regulation, individuals perceive them as functional for the regulation of others in episodes of sadness, coinciding with other studies that show adaptive effects of these strategies in specific cases (Larsen & Prizmic, 2008).

In the condition of joy, parts of the most used strategies are also the ones that were the most associated with SHARING the experience: i.e. *seeking emotional support/sharing the emotion*, several associated with personal growth, *joking, etc.* Some of these associations confirm that these tendencies to communicate one's thoughts and deepen social relationships are part of the adaptive effects of positive emotions, as suggested by Fredrickson (2009).

Strategies perceived as efficient for CONTAINMENT of the emotion of joy are also used by a high percentage of participants, although with less cogency (*planning, distraction, seeking information, placing responsibility on others, self-control*). These data may have a double interpretation that could be of interest for further research. First, perhaps the individuals could be more aware of which strategies are efficient for them to regulate joy, a phenomenon which does not seem to happen with negative emotions like sadness (Oberst et al., 2013). Additionally, these data suggest that regulation of joy would go beyond the mere increasing or maintaining of positive affectivity as suggested by the studies of Fredrickson (Fredrickson, 2009; Fredrickson & Cohn, 2008).

In interpersonal regulation, we see that providing the adaptive profile for the experience and regulated expression or dimension of sharing includes helping others to plan, pushing them to negotiate, comforting them and helping them with their self-control, along with providing emotional and informative support; these latter two strategies are functional only for the interpersonal condition. Support is

always a way of sharing and showing emotions, and this has been associated with the induction of positive emotions, which favors adjustment (Niven, Totterdell & Holman, 2009). Negotiation is also associated with adjustment in joy, since it is part of a strategy that involves encouraging the other individual to share the emotion in order to reach a joint solution. Working to ensure that the other person is rewarded is also associated with adjustment, as is favoring self-control in the rest of the individuals. This is important, since it suggests that an excess of euphoria does not favor regulated sharing of this emotion, thus a certain degree of self-control is considered adaptive.

Self-regulation versus inter-regulation

The comparison between the frequencies of use of strategies for self-regulation and for inter-regulation of joy also shows that more strategies are used for self-regulation than for inter-regulation. These results are consistent with previous studies (Oberst et al., 2013) and suggest that individuals have better information about themselves, probably due to a self-reference bias.

Joy versus sadness

Only a limited number of strategies (namely *discovering strengths* and *discovering opportunities*) are functional for both types of episode. These two strategies belong to the strategy family associated with personal growth. Growth involves finding the positive side or positive sense of the experience, not necessarily of the emotional episode itself, but at least of the personal reactions and the reactions of others to it; as *reappraisal,* they involve a change in the orientation and attribution of meaning. This type of strategy has been shown to be adaptive in both positive and negative affectivity (Páez et al., 2013; Quoidbach et al., 2010).

Conclusions

Most of the previous studies on positive affectivity have only considered those strategies that were positive for maintaining or increasing the emotion due to its positive effect on wellbeing (see Quoidbach et al., 2010). However, our data show that some strategies for regulating joy may also be associated with containment of the emotion, and these strategies would also be adaptive for individuals, since we can observe that experiencing joy at a high emotional intensity may not be adaptive for an optimal regulation of the emotional situation experienced. Furthermore, the CIRE-43 has shown to be an adequate instrument for studying both

self-regulation and interpersonal regulation strategies for situations of joy, in addition to the study of negative emotions.

Limitations and suggestions to future research

There are limitations to this study, as it is retrospective, exclusively based on self-reports, and the effectiveness of the adjustment goals in the interpersonal conditions was not assessed by the target (i.e. the individual whose emotions were supposedly regulated by the participant), although the perception of improvement of social relations and of the situation may be considered to comprise valid indicators of interpersonal adjustment. Future research could attempt to group strategies into more general dimensions instead of using inventories of single strategies. This would allow for more reliable indicators and increased power to detect associations. With respect to the functionality scale, the fact that there were different factorial solutions for the two emotions could affect the comparability of the conditions. Further studies, and especially longitudinal studies, are required to sustain more solid conclusions about the accuracy and validity of the measures employed.

REFERENCES

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217-237. doi:10.1016/j.cpr.2009.11.004

Company, R., Oberst, U., & Sánchez, F. (2012). Regulación emocional interpersonal de las emociones de ira y tristeza. *Boletín de Psicología, 104*, 7-36.

Da Costa, S. Páez, D., Oriol, X., & Unzueta, C. (2014). Regulación de la afectividad en el ámbito laboral: validez de las escalas de hetero-regulación EROS y EIM. *Revista de Psicología del Trabajo y de la Organizaciones, 30,* 13-22. doi.org/10.5093/tr2014a2

Fredrickson, B. (2009). *Positivity: Groundbreaking research reveals how to embrace the hidden strength of positive emotions, overcome negativity, and thrive*. New York: Crown Publishing Group.

Fredrickson, B.L., & Cohn, M.A. (2008). Positive emotions. In M. Lewis, J.M. Haviland-Jones, & L.F. Barrett (Eds.), *Handbook of emotions* (3rd ed.) (pp. 777 -796). New York: Guilford Press.

Gross, J.J. & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85,* 348-362.

Larsen, R. & Prizmic, Z. (2008). The regulation of emotional well-being: Overcoming the hedonic treadmill. In M. Eid and R.J. Larsen (Eds.) *The science of subjective well-being* (pp. 258-289). New York: Guilford.

Little, L. M., Kluemper, D., Nelson, D.L., & Gooty, J. (2011). Development and validation of the Interpersonal Emotion Management Scale. *Journal of Occupational and Organizational Psychology*, *5*(2), 407-420. doi: 10.1111/j.2044-8325.2011.02042.x

Mikolajczak, M., Tran, V., Brotheridge, C.M, & Gross, J.J. (2009). Using an emotion regulation framework to predict the outcomes of emotional labor. In: C.E.J. Härtel, N.M. Ashkanasy, &

W.J. Zerbe (Eds.), *Research on emotion in organizations* (pp. 245-273). Bingley, UK: Emerald Group Publishing.

Niven, K., Totterdell, P., & Holman, D. (2009). A classification of controlled interpersonal affect regulation strategies. *Emotion, 9*, 498 –509. doi: 10.1037/a0015962.

Niven, K., Holman, D., & Totterdell, P. (2012). How to win friendship and trust by influencing people's feelings: An investigation of interpersonal affect regulation and the quality of relationships. *Human Relations, 65*(6), 777-805. doi:10.1177/0018726712439909

Oberst, U., Company, R., Sánchez, F., Oriol, X., & Páez, D. (2013). Funcionalidad de las estrategias de autorregulación y heterorregulación interpersonal de la ira y tristeza. *Anuario de Psicología, 43*, 381-396.

Páez, D., Martínez-Sánchez, F., Sevillano, V., Mendiburo, A., & Campos, M. (2012). Mood Affect Regulation Scale (MARS) expanded to anger and sadness. *Psicothema, 24*, 249–254.

Páez, D., Martínez-Sánchez, F., Mendiburo. A., Bobowik, M., & Sevillano, V. (2013). Affect regulation strategies and perceived emotional adjustment for negative and positive affect: A study on anger, sadness and joy. *Journal of Positive Psychology*, *8*(3), 249-262. doi: 10.1080/17439760.2013.786751

Quoidbach, J., Berry, E.V., Hansenne, M., & Mikolajczak, M. (2010). Positive emotion regulation and wellbeing: Comparing the impact of eight savoring and dampening strategies. *Personality and Individual Differences, 49*, 368-373. doi:10.1016/j.paid.2010.03.048

Rasmussen, P.R. (2010). *The quest to feel good.* New York, NY: Routledge.

Rimé, B. (2009). Emotion elicits the social sharing of emotion: Theory and empirical review. *Emotion Review, 1*, 60–85. doi: 10.1177/1754073908097189

Tugade, M.M., & Fredrickson, B. L. (2007). Regulation of positive emotions: Emotion regulation strategies that promote resilience. *Journal of Happiness Studies: Special Issue on Emotion Self-Regulation, 8*, 311 – 333. doi: 10.1007/s10902-006-9015-4