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Theoretical Considerations for the Articulation of Emotion and Argumentation in the Arguer: A Proposal for Emotion Regulation in Deliberation

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Abstract
The concern for the role of emotion in argumentative encounters has rested upon the concept of emotion as arguments, emotions to obtain the adherence of the audience and reflect the virtues of a good arguer. In this paper, we focus on understanding emotion and argumentation based on cognitive approaches that identify the relationship between the two elements, to propose the use of emotion regulation strategies in deliberative dialogue. Bearing in mind that the intensity of emotional responses may, in some cases, hamper one's capacity to solve problems during a practical argument, we suggest that the use of emotion regulation strategies may favor deliberative dialogue, leading to more adaptive emotional responses and, in turn, better argumentative encounters, rendering decision-making more efficient. This article conceptualizes argumentation, revealing the historical path of emotion in studies on argumentation. It presents the concepts of emotion and emotion regulation, followed by the function of emotion regulation in argumentative encounters, illustrating this in two different situations. We conclude with the contribution made by the use of strategies for emotion regulation during deliberative dialogue.

Keywords Emotions · Argumentation · Deliberation · Emotion regulation

1 Introduction

This article deals with the relationship between emotion and argumentation in order to suggest a manner by which to regulate the emotions of the arguer in argumentation to favor deliberative dialogue. The articulation of emotion and argumentation was studied in ancient Greece, when Aristotle recognized the importance of influencing the emotions of the audience, even though his epigones developed their

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theories in relation to formal logic and did not place great emphasis on the question of the emotions from a rhetoric or dialectic perspective. In the seventeenth century, modernity radicalized this movement, once again, leaving aside the concern for emotions in argumentation. The relationship between emotions and argumentation was also deprived of any particular attention in the studies through which argumentation theories were reinstated in roundabout 1958.

The theories that today focus on the link between emotion and argumentation do so based on either emotion as an argument, or on emotion in the listener, or on emotion in the arguer. Perspectives of argument focus on the validity of the argument as a product, as a strategic maneuver, or as something that can be referred to in an argument. The theories that address emotion in the listener or in the listener are more in line with Aristotelian philosophy and seek to understand emotions of the audience, as a means of persuasion. Finally, the theories that address the emotions of the speaker or arguer address the argumentative virtues that a person—a good arguer or not—may possess. This line encompasses the Stoic tradition, in which it is thought that someone who is a good arguer must be in control of the emotions.

The proposal of this article develops within this last line of thought, affirming that the use of strategies may help regulate emotional responses during deliberative dialogue, thus, improving our understanding of the situation, increasing our power of persuasion, and leading to better decision-making and more effective actions. To develop this idea, we have to consider issues such as (1.1) the conceptualization of the argument, (1.2) general considerations on emotion from the perspective of argumentation theory, (2.1) the definition of emotion, (2.2) emotion regulation and the strategies used for this; to then address (3) the relationship between emotion regulation and argumentation, illustrating our proposal based on two examples (3.1 y 3.2), and finally (4) conclude, bearing in mind the (4.1) scope and limitations of our proposal.

2 Argumentation

2.1 Conceptualization

Argumentation is understood as a process and a product, extending from formal and regulated debates to more casual, every day discussions, in which an individual justifies or presents a position or opinion by communicating his or her thoughts and ideas to someone else (van Eemeren et al. 2014; Walton and Krabbe 1995; Perelman and Olbrechts-Tyteca 1969; Toulmin 2007). One of the requisites for an argumentative encounter to occur is for both parties to have the cognitive skills or the reasoning necessary, to understand a different point of view (van Eemeren et al. 2014; Walton and Krabbe 1995; Perelman and Olbrechts-Tyteca 1969; Toulmin 2007).

Argumentation is, therefore, a complex communicative and interactive act with a specific purpose that appeals to the reasonableness of the subjects involved in the argumentative meeting (van Eemeren et al. 2014). Depending on communicative movement that involves verbal and non-verbal aspects, a dialogue is established that creates a commitment for both—rational parties to approach the information from a

critical perspective and to reach an agreement (van Eemeren et al. 2014; Walton and Krabbe 1995; Toulmin 2007).

Focusing on practical argumentation, we can say it is used to solve practical problems; it is always social and leads to decision-making or collective action (Audi 2015; Walton and Krabbe 1995; Gómez 2017). As such, its conclusions should be practical and should modify the initial problem, resulting in an action or any intention to act in a specific manner (Gómez 2017; Tindale 2017).

We specifically center around deliberative dialogue, in which deliberation is carried out to solve a problem and to make decisions that are useful in dealing with a practical problem (Walton 2015). In such dialogues, the agents are concerned with determining how to act prudently, as deliberative dialogues invite those taking part to consider the consequences of the future actions necessary for a specific goal. This, in turn, implies that there must be consensus on the problem to be solved (Walton and Krabbe 1995). Finally, those involved in the deliberative dialogue are expected to assess the arguments in favor and against, considering the unfolding and future of the problematic situation (Walton 2015).

2.2 General Considerations on Emotion from the Perspective of Argumentation Theory

To briefly present the place of emotion within argumentation theory, we can make use of the distinction between the argument offered by a speaker to the listener, the speaker that offers the argument, and, finally, the listener to whom the speaker offers the argument. Some argumentation theories address emotion in the argument, others address emotion in the listener, and others still address emotion in the speaker.

Among the argumentation theories that address emotion in the argument, the standard version of the pragma-dialectical, for example, considers that acts of speech that express emotions can occur in an argumentative discussion, but they do not contribute in any way to the pursuit of its objective (van Eemeren and Grootendorst 1984). In the extended version, on the other hand, these can be understood as a kind of strategic maneuver carried out in order to solve the disagreements in favor of a particular perspective (van Eemeren 2010). Similarly, the new dialectical considers the provocation of emotions as a strategy linked to the argumentative use of words, as a strategy which elaborates a redefinition of words creating new associations between their descriptive and emotional components in favor of a particular conclusion (Macagno and Walton 2013). In contrast, coalescing argumentation theory allows the expression of a reference to emotions as a particular means of argumentation (together with kisceral and logical modes) (Gilbert 1997; Innocenti-Manolescu 2006). What the three approaches have in common is that they address emotion in the argument, either as something concomitant to the argument, as a strategy of the argument, or as a modality of the argument.

Among the theories that address emotion in the listener, the Aristotelian rhetoric considers it a means of persuasion (together with ethos and logos): "[There is persuasion] through the hearers when they are led to feel emotion [pathos] by the

speech; for we do not give the same judgment when grieved and rejoicing or when being friendly and hostile" (Aristotle 2006, p. 1.2.5).

The sense in which the appeal to the emotions of the listener can be understood as part of a rational argumentative process of persuasion has constituted a problem. The elucidations of this sense characteristically link emotion to argument through the values of the listener. Meyer, for example, understands the emotions as subjective expressions of values, and implicit judgments modulated according to the axis of pleasure and displeasure (Meyer 2009). Tindale, on the other hand, exposes the cognitive contents of the emotions that can be altered by argumentation, leading the listener to a change of emotion and a corresponding change in the way he or she appreciates the situation under discussion (Tindale 2015, 2017). None of this alters the fact that, from this perspective also, other theorists too consider the appeal to the emotions of the listener as a rhetoric strategy.

Finally, emotions have been addressed in the speaker in terms of virtues or vices and in terms of factors whose intensity has to be controlled if one is to improve argumentation in difficult situations. The study of the virtues in argumentation, in fact, has recognized (hardly using the word *emotion*) that some emotions facilitate argumentation, while other hamper it (Aberdein and Cohen 2016). Accordingly, and although independently, Breton bases himself on the Stoic tradition to propose that it is necessary for the speaker to learn to regulate his or her emotions to argue about difficult situations (Breton 2007). Our proposal falls within this last option in addressing the emotions of the speaker addressing an argument to a listener, and by focusing on the intensity of the emotions, which has to be regulated in order to raise the quality of the argumentation.

Having clarified the existing link between emotion and argumentation, we believe it relevant to think about whether emotion regulation can be useful in practical arguments, ensuring a better decision-making process, commitment, and action. To do so, it is necessary to review the concept of emotion and emotion regulation, concentrating on strategies for emotion regulation and on the linkage between emotion regulation and practical argument.

3 Emotion

3.1 Conceptualization

Although the concept of emotion cannot be easily defined, it is, nevertheless, seen "as that which leads one's condition to become so transformed that his judgment is affected, and which is accompanied by pleasure and pain" (Solomon 2008: 5. This assertion highlights the behavioral, cognitive, and social components of the emotions. Most of the theories on the emotions recognize that all emotions presuppose or require cognition, consciousness, recognition, judgment or assessment (Solomon 2008). Emotion is defined as a complex concept with different meanings and expressions, governed by three key characteristics: motivation, experience, and malleability (Gross 2008).

The first key element of the emotions is the motivation through which we seek to understand what gives rise to an emotion (Carver and White 1994; Carver 2004). For this to happen, there has to be a clear understanding of the meaning of the situation and its correlation with the goals of each individual to give rise to an emotion. These processes of assessment are, in most cases, automatic and unconscious (Lazarus 1999). Thus, it is recognized that the cognitive process can go beyond consciousness, which is configured according to the situation, previous experiences, and intention (Lazarus 1999; Bower and Cohen 1982; Clore and Ortony 2000). The emotions respond to physiological or contextual situations; that is, they have a relationship of causality (Solomon 2008), and they are the product of reason, which begins with situation assessment (Lazarus 1999).

Experience is the second key component of emotion and it points out the constituent elements of the emotions. Generally considered as "multifaceted, embodied phenomena that involves changes in the subjective experience, behavior and peripheral physiology" (Gross 2008: 498); once activated by emotional stimulus, emotions can be evinced in clear expressions, thoughts, sensations, neurochemistry and behavior (Clore and Ortony 2008). It is worth noting that the reaction of any specific emotion will depend on the context, but the way in which this emotion is expressed (facial expressions, posture, tone of voice, cerebral activation, neurochemistry, among others) may be determined by social and biological factors (Clore and Ortony 2008).

The third and last key characteristic to define emotion is its malleability. The emotions can be expressed or shown in many ways. Their malleability means that an emotion can be associated to different responses and it is a fundamental factor that allows emotion regulation (Gross 2008; Gross and Thompson 2007; Frijda 2008). The possibility of controlling or regulating them means that emotions or their responses can be interrupted and that the individual experiencing them can be conscious of this in order to then control or change them.

It is worth highlighting that the characteristics listed above present emotions from a cognitive perspective; that is, that the elicitation, and their subsequent regulation, will be the result of cognitive processes summarized in situation assessment and the systemic representation that will allow an association (Power and Dalgleish 2008). Situation assessment is restricted by causal schemes, learned explicative styles, and emotions (Roseman 2001). Focusing on the evaluative model of emotions creates the useful specifications and interventions that enable the development of strategies and techniques that really affect and modify the emotions (Roseman 2001).

From this perspective, we can also talk about the existence of basic emotions (Greenberg 2008; Lewis 2008a, b, c), which have evolved to be adaptive, and are seen as processes that depend on the usually automatic assessment of present events and responses to them (Ekman and Davidson 1994). The basic emotions on which the most evidence is found are fear, sadness, joy, disgust, and surprise (Ekman and Friesen 2003). Even less evidence can be found on emotions such as contempt, shame, guilt and embarrassment (Ekman 1992). These emotions, as well as being universal and affecting the way in which we relate to others, are present in other primates, they are useful in processes of adaptation, they have a distinctive physiology, they occur automatically, they begin rapidly and are of brief duration (Ekman 1992). It is worth noting that, although this model involves an evolutionist vision (Camras

and Fatani 2008), these emotions can also be understood from a constructionist partner perspective by understanding the specificities of the antecedents of each emotion and the universality of the social learning developed across cultures (Ekman 1992). Similarly, from other perspectives, the basics would have to do with their adaptive value in relation to dealing with vital adaptive tasks. For many authors, there are common adaptive tasks that are valued and configured in common relational topics. What these definitions have in common with Ekman's approach is the presumption that the emotions are designed to deal with inter-organism meetings, between people or between people and other animals. Finally, we must bear in mind that, although emotions can also arise in the absence of another organism, their primary function is to deal with rapid coping in interpersonal meetings according to certain types of activity that have been adaptive in the past, understanding this as that which refers to the species and the ontogenetic past of each individual (Ekman 1992).

It is important to highlight, that the emotions regulate our way of thinking, made evident by memories, imagination and expectations, in the same way as expressions or emotional responses are crucial for the development and regulation of interpersonal relationships. We also consider it fundamental to clarify that emotions are neither good nor bad. On the contrary, as exposed above, they are adaptive; that is, they are useful (Ekman 1992). It is our emotional responses that can sometimes be considered maladaptive, be it because they occur in inappropriate spaces, they last longer than expected, or because their unexpected intensity hampers problem solving and thought processes (Gross and Thompson 2007; Werner and Gross 2010).

3.2 Emotion Regulation and its Strategies

Similarly to the above, emotion regulation is a concept which is difficult to define. Given that one of the functions of emotion is to coordinate the different response systems (Gross 2008), emotion regulation is understood as a process that influences the way in which emotion is experienced and expressed (Medrano et al. 2016; Gross 2008). Emotion regulation commonly refers to the process of heterogeneous sets within which an emotion is regulated, through intrinsic or extrinsic strategies (Gross 2008). When it is an intrinsic process, it is the person experiencing the emotion that regulates it, and when considered an extrinsic process, the regulation comes from outside; for example, when an external individual regulates the emotion of another individual (Werner and Gross 2010).

Most of the time, emotion regulation is used to downregulate the behavioral and experiential features of emotions perceived as negative such as anger, fear, and sadness (Werner and Gross 2010; Gross et al. 2006). However, emotions that are generally considered positive can also be regulated by downregulating their intensity to make the reasoning process more objective (Werner and Gross 2010). Thus, negative or maladaptive emotional responses can be understood as emotional responses whose intensity can be problematic or uncomfortable because they are unexpected, inappropriate in the context, or because their intensity or duration are unsuitable (Gross and Thompson 2007; Werner and Gross 2010) and so they hinder the reasoning process, hampering problem solving and obstructing personal relationships.

Positive or adaptive emotional responses are involved in the organization of cognitive processes, promoting flexible thinking, better conflict resolution, and increased innovation, efficiency, and meticulousness in decision-making. Adaptive positive affects, such as happiness or joy that surround a specific task will lead to reasonable responses and thoughts which are logical and unusual (Isen 2008).

Emotion regulation includes the selection and implementation of strategies that are suitable for the context, depending on the level of control one can have over the internal and external events, and bearing in mind the long-term goals (Werner and Gross 2010). Cognitive-behavioral interventions—which usually point to assessments that provoke emotional responses, are considered among the most successful (Joorman et al. 2010). In these cases, the strategy to modify the assessment to alter the dysfunctional and emotional states has strong empirical support (Roseman 2001).

Before enumerating the emotion regulation strategies, it is important to highlight their complexity. The strategies could have different effects on the experimental, behavioral and psychological components of the emotional responses (Werner and Gross 2010). Similarly, it is important to understand that emotion regulation is given within social context, in the same way as emotion, and it can be molded by social forces such as culture.

There are five groups of emotion regulation strategies, located along the timeline of emotional processing (Werner and Gross 2010) so that they cover the moments prior and following the emotional response. The antecedent-focused strategies can occur before emotional response tendencies have been fully activated, affecting the behavioral and physiological responses that accompany the emotion. In contrast, response-focused strategies rely upon the fact that an individual will know what to do once an emotion is activated and the responses have already been generated (Loewenstein 2007). Antecedent-focused strategies include four approaches, (1) situation selection, (2) situation modification, (3) attentional deployment, and, finally, (4) cognitive change. Following the emotional response, the response-focused strategy would be (5) response modulation (Werner and Gross 2010).

The purpose of the *situation selection* strategy is for the individual to choose whether or not to enter the situation that may potentially generate an emotion (Werner and Gross 2010). This strategy affects the situation to which an individual is exposed to and it depends on the capacity to anticipate emotional responses based on memories of past situations and the emotions that they give rise to (Gross 2008). *Situation modification* occurs following situation selection and is a strategy that acts upon the situation itself, looking to modify its impact and has a genuine influence on a social situation (Werner and Gross 2010). The efforts made to modify the situation can give rise to a new external situation (Gross 2008). *Attentional deployment* is used to choose aspects of the situation on which to focus. In contrast to the two previous strategies, this one does not change the way in which an individual interacts with his or her environment. Rather, it leads the individual to redirect his or her attention within a specific situation to influence his or her emotions. This strategy involves the assessment of thoughts and feelings to then decide to pay attention to one of these over the other (Werner and Gross 2010).

Cognitive change is the fourth strategy and the last before a response-focused strategy is presented. The purpose of the strategy is to change the way in which an individual constructs the meaning of the situation by modifying the internal environment (Gross and Thompson 2007). Bearing in mind that the situation must be seen as relevant to an individual's goals before it can give rise to an emotional response, cognitive change requires a change in the assessment of the situation in order to preserve its emotional importance (Werner and Gross 2010). When an individual modifies what he or she thinks of a situation or of his or her ability to handle it, the emotional response to it can be modified (Gross 2008). The last strategy and the only one that focuses on the response is *response modulation* and it has an effect on the tendencies of emotional responses, such as facial expression, vocal expression and non-verbal indicators after that these have been activated. The purpose of this strategy is to inhibit the behavioral expressions of emotion. This suppression or avoidance of the experience may be associated to an individual's perception of inability to experience thoughts, feelings and problematic sensations, and to a deliberate effort to control or avoid them (Werner and Gross 2010). Response modulation is expected to influence the physiological experiences and the behavioral responses in a relatively direct way, exemplified in relaxation exercises or mindfulness (Gross 2008).

Emotion regulation strategies include, most of the time, four steps, (1) pausing, (2) noticing, (3) deciding how controllable the emotion and situation are, and (4) acting in line with long-term goals (Werner and Gross 2010). Pausing involves an avoidance of immediate reaction to the external situation, in order to downregulate the urgency of the emotion and control the behavioral reaction to it. Noticing increases our awareness of the response, in order to improve our identification of the emotion. This relates to the idea that in order to effectively control something, we have to know what it is that has to be controlled. To determine our perceived level of control over an external situation and our internal reaction to it reveals whether an action could be useful or whether the emotional response could defer or deviate from the desired direction (Lazarus 1999). To act in line with long-term goals, values, and objectives can create the necessary perspective to determine whether the emotional response is useful or not, and it inhibits or controls inappropriate or impulsive behavior (Greenberg 2000).

4 Emotion Regulation and Argumentation

Having specified the particularities of emotion, argumentation and emotion regulation, our goal is to expose how emotion regulation can be useful during deliberation. This proposal is based on different ideas, all of them surrounding the decision-making process, the cognitive process, and the neuropsychological approaches that could increase argumentation skills based on the use of emotion regulation strategies. The five strategies presented above may be useful during most situations where there is a maladaptive emotional response. However, the first two—*situation selection* and *situation modification*—will not be considered, given that in this case, the situation is an argumentative encounter, and selecting or modifying it would involve

a lack of participation in the argumentation dialogues, which would defeat the object of our proposal.

It is important to denote that individuality and social relations are important for argumentation theories and emotion-related theories. In this way, the emotions and argumentative exchanges depend on cognitive processing determined by emotions, situations, motivations, judgments, expectations, and the choices of each individual in his or her cultural and social context (Isen 2008; Tindale 2017). This link is strengthened by the contributions of the cognitive sciences, which assert that cognitive frames are fundamental to understanding the world, and to structure thoughts and reason (Lakoff 1990, 1996). These frames are characterized as processes that operate in the central nervous system that define common sense and vary from person to person (Lakoff 2006).

Cognitive frames are responsible for structuring and activating emotions, but the emotions have a complex conceptual structure and they have physical and behavioral effects that can be modified by intervening in the cognitive frame that activates them (Lakoff 1990). It is fundamental to supplement this union between cognitive frames and emotions ensuring that the relationship is one of cause-and-effect. This means that while an emotion is activated by a specific cognitive frame, a new cognitive frame activated by an emotion, may affect the individuals' reasoning and, therefore, his or her argumentation.

Contemporary theories on emotions consider that adaptive emotional responses determine behavioral and physiological changes, and they facilitate the decision-making process, increasing memory and improving interactions with other individuals (Werner and Gross 2010). Complementing this idea, adaptive emotional responses mobilize and guide reason, while they control and organize the functions of memory and attention, increasing one's ability to learn new things and to adapt to new situations or external demands (Greenberg 2000). In contrast, maladaptive emotional responses tend to interfere in cognitive processes, reasoning, and cognitive flexibility (Joorman et al. 2010).

It is also important to highlight that the rhetoric nature of thought, understood as the way in which cognitive processes are constructed based on dialogic exchanges, uses an argumentative structure in order to obtain the adherence of others (Larraín and Haye 2012). Emotion, considered from the rhetoric, the dialectical or as a virtue of the arguer occupies a relevant and importance place within argumentation; however, with a better understanding and regulation of the emotional responses, practical argumentation and deliberation can be carried out more easily, given that, as exposed above, emotion will have an effect on information recovery, involving memory, attention and situation assessment, which will be useful during argumentation, specifically deliberation.

Contributing to the establishment of the link between emotion and argumentation, a neuropsychological perspective emphasizes on the cerebral functions. According to this, argumentation and deliberation take place in the prefrontal cortex, while cerebral activation related to an emotion has been reported to occur mainly in the limbic system. Between these two cerebral areas there is a feedback loop that could inhibit the correct functioning of both parts. In the case of a maladaptive emotional response, it may be that the activation of the limbic system could

affect the correct functioning of the prefrontal cortex, thus, producing a negative effect on argumentation and deliberation (Ledoux 2000). This leads us to the consideration that the strategies for emotion regulation may downregulate the intensity of maladaptive responses, allowing an improved performance of the prefrontal cortex (DeRubeis et al. 2008; Clark et al. 2009). These strategies may be useful in acquiring coping strategies, increasing working memory and cognitive flexibility (Roffman et al. 2005), especially by using strategies that regulate or maladaptive emotional responses, found in emotional processing (De Carvalho et al. 2010).

The emotional responses that need modification are responses to arguments understood as products of a cognitive process that accompany argumentation. Focusing on basic emotions, given their universal nature, can lead to more efficient identification and regulation. The strategies used for emotion regulation affect the cognitive processes associated to the manifestation of an emotion during argumentation, as the assessment of the external situation or of the stimulus would activate cognitive processes and frames that could, ultimately, affect the argumentative skills.

Downregulating the intensity of basic emotions and increasing their positive or adaptive responses, may lead to changes in the cognitive processing and the behavioral manifestation of the individual feeling the emotion. This is due to the fact that the cognitive and motivational processes behind the emotion have been changed (Isen 2008). The possibility to link emotion and argumentation—both of which are situational processes focusing on objectives—may contribute to a better understanding of the role of the emotions during deliberation and the effects of emotion regulation on interactive and dialogic decision-making.

4.1 Rhetorical Example—Artificial (Mary–Paul Case)

To illustrate the use of emotion regulation strategies for the sake of deliberative dialogues, we will take a hypothetical situation, adapted to our needs from an example used by Gilbert in Emotion Argumentation and Informal Logic (2004): Paul and Mary are talking about a problem Paul has. He is avoiding an important deliberative dialogue with his wife, Anna. He doesn't want to fight with her, but they seem to disagree on their vacation plans. Paul wants to take a short vacation to a national and comfortable destination, as they are supposed to be saving money and time for the near future when they will have a family. Anna, on the other hand, wants to take advantage of the opportunity to go somewhere exciting and international, as right now, they have the money and time to do so, and this will be harder once they have a family. In their conversation, Paul tells Mary that he feels that Anna thinks that his proposal is boring, that she is not thinking about their future family, that they would only be wasting money and time, and this makes him feel uneasy and upset. Paul got angry the first time they deliberated about the topic and decided not to talk to Anna about it again (*situation selection*); every time that Anna would try to talk about it, he would change the subject, and wait for a better moment to do so (*situation modification*).

Mary tells Paul that the deliberative dialogue with Anna is inevitable and suggests that he should use different strategies that can help him get over the unease and

anger he feels when they are trying to solve the common problem of where to go on the holidays, by the use of a deliberative dialogue, as the emotion is hampering the dialogue between them and, therefore, their decision-making. The first strategy that Mary suggests Paul should use is to concentrate on the objective of the dialogue (*attentional deployment*), to place all his attention on deciding where they want to go, and not focus on the negative feelings and thoughts he is having. Another option is for Paul to change the way in which he is assessing the situation, and to modify the way he is thinking about the holidays (*cognitive change*). Instead of thinking about the trip from a family perspective, he could try and think about the possible consequences and benefits of the trip for them as a couple. With these options, Mary expects Paul to be able to change the intensity of his anger, unease, and concern for a more manageable emotional response with which to present his point of view, or even a more enjoyable emotion such as happiness or joy.

Finally, Mary suggests that if Paul cannot change where his attention lies or the way in which he sees the situation, and his anger and begins to exceed the expected or manageable, and this becomes evident in the deliberative dialogue, he will have to regulate how he feels and how he is expressing his unease or irritation (*response modulation*). This implies that he would have to try to control the tone and volume of his voice as he speaks, as well as his facial expressions and body language so that the conversation can take on a peaceful tone and that, even if angry, he is able to control the intensity so that it does not escalate to becoming a maladaptive emotion that disrupts the deliberative dialogue, and thus, the decision making process. Knowing that this is not easy, Mary tells him that, regardless of the strategy he chooses, he has to take a moment (*pausing*), to become aware of his emotions and situation (*noticing*), so that he can decide how controllable they are (*decide*) and remember the purpose of the situation or dialogue (*act in line with long-term goals*), so that the strategy that he chooses can be useful and suitable for the moment.

4.2 Scientific Example—Real (Cohabitation Councils)

Another example of the use of emotion regulation strategies in spaces of deliberative dialogue can be taken from a real context. Medellín (Colombia) hosts cohabitation councils, which are community spaces in which a local government promoter gathers some of the members of the community and government representatives to discuss specific practical situations or problems. In this case, the promoters have to mediate the deliberative dialogues, promoting commitment building, while they gather information on the meeting, which they then use to elaborate official documents.

We will take the example of John, government promoter of one of the city's districts, in one of the cohabitation councils that brought together the inhabitants of the neighborhood with mobility, planning and public space representatives. During the meeting, John seems to have a good level of control over the group, he gives the floor, takes note of important issues, maintains public order and allows the deliberative dialogue to lead to agreements and commitments. His emotional responses seem to be adaptive and this is clearly reflected in his face,

body, use of language, tone of voice and mediation skills. During the meeting, a member of the community congratulates John for his work, and John manifests facial and physiological responses and expressions that reveal that he is very pleased. As from this point, John smiles, changes his posture, leans back on the chair, plays with his pencil, and no longer takes notes, even though the dialogue had moved on to a different and relevant topic. Immediately thereafter, John takes out his cellphone and begins to play with it while the other participants continue the deliberative dialogue. Finally, someone asks John a question he is not able to answer as he does not know what the conversation, at this point, is about. They had to repeat the question for him.

With this example, we can illustrate how the presence of cognitive and behavioral responses that accompanied happiness, in this case, hampered John's skills needed for the deliberative dialogue. When John received positive feedback (external situation), he reacted with joy (basic emotion), which had maladaptive effects on his attention and, therefore, on his memory and his ability to moderate the deliberative encounter. It is worth noting that, following the meeting, the presence of the emotion observed was confirmed with John and emphasis was made on the behavioral changes caused by the emotion and the different ways in which it affected his performance. He was then presented with three different emotion regulation strategies so that, in case a similar situation happened again, he could control the negative effects brought by the intensity of the emotion. The emotional regulation strategies were presented with the purpose of improving John's argumentative abilities in deliberative dialogues, to do so; it was introduced in the following way:

Researcher: Okay John, when you became happy because of what the community said about you, the way in which you related to them, the eye contact, attention, note taking and listening were negatively affected. I want to propose three options to help you with this: you can change what you focus on (*Attentional deployment*), you can change the way in which you see the situation (*Cognitive change*), or you can suppress the way in which you express this happiness (*Response modulation*).

John: And how do I do that?

R: Let's begin with *attentional deployment*. In this case, you have to find a way to stop yourself from focusing on the "well done", and, instead, continue to take note, redirecting your attention to the current situation and not to the positive thoughts or the future as all that does is increase the intensity of your happiness.

J: So, what you are saying is that I should leave this emotion to one side and think about it later?

R: Yes, that's one option. The other, is *cognitive change*; as we already know that what made you feel happy was that you thought "I'm glad the community is happy with me, I hope I get to stay here", you should distance yourself from the situation, imagine that you hear this comment on your

good work as a neutral person, so that you don't feel excited by thinking about the numerous possibilities of what may happen.

J: Ahh, ok, so like they said this to me but about someone else.

R: That's it, and finally you can suppress the impulse to move, change position, pick up your phone, play with your pencil, look away, or any other form of expressing your happiness, so that the intensity will downregulate by itself to the point that you will be in control of it again.

J: So, I can't smile?

R: That's not it, you can smile, but ideally the behaviors that keep us excited should not last too long, so that you're not distracted and can continue to control the meeting.

J: Ok, thank you very much.

By having a clear idea of the emotion, the emotional response, the effects that it creates, and how to regulate these, we hope that in subsequent deliberative dialogues, regardless of which basic emotion is activated, John will have the ability to identify the emotion, its effects and what makes them useful or not for his role in the community meetings. With the additional information on the three emotion regulation strategies, whereby they are told what they can do and are given questions to guide their use, local government promoters like John will be able to apply these strategies, improving, in the short-term, their deliberative skills as moderators.

5 Conclusions

In this article, we have exposed emotion and its role in argumentation, enabling an analysis of the ways in which, in some cases, this could hinder problem solving during practical arguments and how the presence of adaptive emotional responses can facilitate argumentative encounters and deliberative dialogue. Deliberation, understood as an argumentative process whose purpose is to exchange different points of view, allowing individuals to decide how they are going to act in different situations, can be affected by attention, memory, and the use of language, which, in turn, are structured and affected by emotions.

With this article, we present emotion regulation as a process that can contribute to and adaptive expression of emotional responses and to the modification of maladaptive emotional responses during argumentative encounters. Our final hypothesis focuses on the possible contribution to the deliberative process through the use of three strategies for emotion regulation, focusing on strategies that allow individuals to take part in practical argumentative dialogue by using *attentional deployment, cognitive change,* and *response modulation* to be able to modify the intensity of the emotion and the emotional responses that may hamper dialogue, in contrast to situation selection and situation modification.

This proposal can be useful, given the evidence found on the different fields that shows the successes of emotion regulation, the scope of these emotion regulation

strategies and their positive effects on cognition, reasoning and skills for problem solving and interpersonal relationships.

5.1 Scope and Limitations

This article presents different considerations on the relationship between emotion and reasoning during argumentative dialogues, specifically in deliberation. It must be understood, however, that such aspects here presented are based on a multifactorial, complex and comprehensive system: the human being. Human emotions are influenced by many situations, not only due to argumentation, but also for reasons such as health, interpersonal relationships, the environment, and culture, among others.

It is worth noting that this is a theoretical proposal, based on a review of concepts relating to argumentation, practical argument, deliberation, emotion and emotion regulation. To date, there have been no experimental studies that reveal the link presented in this work. The example presented relating to the cohabitation councils was an initial process of accompaniment to the promoters of these meetings where this hypothesis has been put into practice. The absence of evidence may be considered an invitation for the development of different studies and research programs that evince the thesis or arguments presented in our article. Similarly, we are open to suggestions and considerations that allow us to broaden our perspective on this issue.

The use of emotion regulation strategies may be useful in individual situations as illustrated above or in collective contexts after identifying the group objective and the intensity of the emotional responses that can improve interpersonal relations and facilitate the decision-making process.

References

Aberdein, A., and D.H. Cohen. 2016. Introduction: Virtues and arguments. *Topoi* 35 (2): 339–343. https://doi.org/10.1007/s11245-016-9366-3.

Aristotle. 2006. *On rhetoric: A theory of civic discourse*, 2nd ed. Trans. G.A. Kennedy. New York: Oxford University Press.

Audi, R. 2015. *Reasons, rights and values*, 1st ed. Cambridge: Cambridge University Press.

Bower, G.H., and P.R. Cohen. 1982. emotion influences in memory and thinking: Data and theory. In *Affect and cognition*, ed. M.S. Clark and S.T. Fiske, 291–331. New Jersey: Erlbaum.

Breton, P. 2007. *Argumenter en situation difficile*, Non Classe ed. Paris: La Decouverte.

Camras, L.A., and S.S. Fatani. 2008. The development of facial expressions: Current perspectives on infant emotions. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 291–303. New York: The Guildford Press.

Carver, C.S. 2004. Negative affects deriving from the behavioral approach system. *Emotion* 4 (1): 3–22. https://doi.org/10.1037/1528-3542.4.1.3.

Carver, C.S., and T.L. White. 1994. behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology* 67 (2): 319–333. https://doi.org/10.1037/0022-3514.67.2.319.

Clark, L., S.R. Chamberlain, and B.J. Sahakian. 2009. Neurocognitive mechanisms in depression: Implications for treatment. *Annual Review of Neuroscience* 32: 57–74. https://doi.org/10.1146/annurev.neuro.31.060407.125618.

Clore, G.L., and A. Ortony. 2000. *Cognition in emotion: Always, sometimes, or never? In cognitive neuroscience of emotion*. New York: Oxford University Press.

Clore, G.L., and A. Ortony. 2008. Appraisal theories: How cognition shapes affect into emotion. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 628–643. New York: The Guildford Press.

De Carvalho, M.R., M. Rozenthal, and A.E. Nardi. 2010. The fear circuitry in panic disorder and its modulation by cognitive-behavior therapy interventions. *The World Journal of Biological Psychiatry* 11 (2): 188–198. https://doi.org/10.1080/15622970903178176.

DeRubeis, R.J., G.J. Siegle, and S.D. Hollon. 2008. Cognitive therapy versus medication for depression: Treatment, outcomes and neural mechanisms. *Nature Reviews Neuroscience* 9 (10): 788–796. https://doi.org/10.1038/nrn2345.

Eemeren, F.H.V., and R. Grootendorst. 1984. *Speech acts in argumentative discussions: A theoretical model for the analysis of discussions directed*, n ed. Dordrecht: Foris Pubns USA.

Eemeren, Van F.H., B. Garssen, E.C. Krabbe, A.F. Snoeck Henkmans, B. Verheij, and J.H. Wagemans. 2014. *Handbook of argumentation theory*. New York: Springer.

Ekman, P. 1992. An argument for basic emotions. *Cognition and Emotion* 6 (3–4): 169–200. https://doi.org/10.1080/02699939208411068.

Ekman, P., and R.J. Davidson. 1994. *The nature of emotion: Fundamental questions*. New York: Oxford University Press.

Ekman and Friesen. 2003. *Unmasking the face: A guide to recognizing emotion from facial expressions*. Los Altos: Malor Books.

Frijda, N.H. 2008. The psychologists' point of view. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 68–87. New York: The Guildford Press.

Gilbert, M.A. 1997. *Coalescent argumentation*. New Jersey: Erlbaum.

Gilbert, M.A. 2004. Emotion and the Pragma-Dialectic Model. In *The practice of argumentation*, ed. F.H. van Eemeren and P. Houstlosser. Holland: Walter Benjamins.

Gómez, J. 2017. ¿Qué es la argumentación práctica? In Coherencia: Revista de humanidades. *Medellín: Universidad EAFIT* 27 (14): 215–243. https://doi.org/10.17230/co-herencia.14.27.9.

Greenberg, L. 2000. *Emociones: Una guía interna*. Bilbao: Desclee de Brouwer.

Greenberg, L.S. 2008. The clinical application of emotion in psychotherapy. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 88–101. New York: The Guildford Press.

Gross, J.J. 2008. Emotion regulation. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 497–512. New York: The Guildford Press.

Gross, J.J., and R.A. Thompson. 2007. Emotion regulation: Conceptual foundations. In *Handbook of emotion regulation*, ed. J.J. Gross, 3–26. New York: The Guildford Press.

Gross, J.J., J.M. Richards, and O.P. John. 2006. Emotion regulation in everyday life. In *Emotion regulation in couples and families: Pathways to dysfunction and health*, ed. D.K. Snyder, J. Simpson, and J.N. Hughes, 13–35. Washington, D.C.: American Psychological Association.

Innocenti-Manolescu, B. 2006. A normative pragmatic perspective on appealing to emotions in argumentation. *Argumentation* 20: 327–343. https://doi.org/10.1007/s10503-006-9016-9.

Isen, A.M. 2008. Some ways in which positive affect influences decision making and problem solving. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 548–573. New York: The Guildford Press.

Joorman, J., K.L. Yoon, and M. Siemer. 2010. Cognition and emotion regulation. In *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment*, ed. A.M. Kring and D.M. Sloan, 174–203. New York: The Guilford Press.

Lakoff, G. 1990. Categories and cognitive models. In *Women, fire and dangerous things: What categories reveal about the mind*, 5–153. Chicago: University of Chicago Press.

Lakoff, G. 1996. *The political mind: What conservatives know that liberals don't*. Chicago: The University of Chicago Press.

Lakoff, G. 2006. *Thinking points: A progressist handbook: Communicating our American values and vision*. New York: Farrar, Straus and Giraux.

Larraín, A., and A. Haye. 2012. The role of rhetoric in a dialogical approach to thinking. *Journal for the Theory of Social Behavior* 42 (2): 220–237. https://doi.org/10.1111/j.1468-5914.2012.00487.x.

Lazarus, R.S. 1999. *Stress and emotion: A new synthesis*. New York: Springer.
Ledoux, J.E. 2000. Emotion circuits in the brain. *Annual Review of Neuroscience* 23 (1): 155–184. https://doi.org/10.1146/annurev.neuro.23.1.155.
Lewis, M. 2008a. The emergence of human emotion. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 68–87. New York: The Guildford Press.
Lewis, M. 2008b. The emergence of human emotion. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 304–319. New York: The Guildford Press.
Lewis, M. 2008c. The emergence of human emotion. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 742–756. New York: The Guildford Press.
Loewenstein, G. 2007. Affect regulation and affective forecasting. In *Handbook of emotion regulation*, ed. J.J. Gross, 180–203. New York: The Guildford Press.
Macagno, F., and D. Walton. 2013. *Emotive language in argumentation*, 1st ed. Cambridge: Cambridge University Press.
Medrano, L.A., R. Muñoz-Navarro, and A. Cano-Vindel. 2016. Procesos cognitivos y regulación emocional: Aportes desde una aproximación psicoevolucionista. *Ansiedad y Estrés* 22 (2–3): 47–54. https://doi.org/10.1016/j.anyes.2016.11.001.
Meyer, M. 2009. *Principia rhetorica: Une théorie générale de l'argumentation*, FAYARD ed. Paris: Fayard.
Perelman, C., and L. Olbrechts-Tyteca. 1969. *A new rhetoric. A treatise on argumentation*. Notre Dame: University of Notre Dame Press.
Power, M., and T. Dalgleish. 2008. Part 1: Philosophy and theory. In *Cognition and emotion: From order to disorder*. New York: Psychology Press.
Roffman, J.L., C.D. Marci, D.M. Glick, D.D. Dougherty, and S.L. Rauch. 2005. Neuroimaging and the functional neuroanatomy of psychotherapy. *Psychological Medicine* 35 (10): 1385–1398. https://doi.org/10.1017/s0033291705005064.
Roseman, I.J. 2001. A model of appraisal in emotion system: Integrating theory, research and applications. In *Appraisal processes in emotion: Theory, methods, research*, 68–91. New York: Oxford University Press.
Solomon, R.C. 2008. The philosophy of emotions. In *Handbook of emotions*, ed. M. Lewis, J.M. Haviland-Jones, and L. Feldman Barret, 3–16. New York: The Guildford Press.
Tindale, C.W. 2015. *The philosophy of argument and audience reception*. New York: Cambridge University Press.
Tindale, C.W. 2017. *Retórica y teoría de la argumentación contemporáneas: Ensayos escogidos de christopher tindale*. Medellín: Editorial EAFIT.
Toulmin, S.E. 2007. *Los usos de la argumentación*. Barcelona: Peninsula.
van Eemeren, F.H. 2010. *Strategic maneuvering in argumentative discourse: Extending the pragma-dialectical theory of argumentation*. Amsterdam: John Benjamins Publishing Company.
Walton, D. 2015. *Goal-based reasoning for argumentation*. New York: Cambridge University Press.
Walton, D., and E.C. Krabbe. 1995. *Commitment in dialogue: Basic concepts of interpersonal reasoning*. New York: State University of New York Press.
Werner, K., and J.J. Gross. 2010. Emotion regulation and psychopathology: A conceptual framework. In *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment*, ed. A.M. Kring and D.M. Sloan, 13–37. New York: The Guilford Press.