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*EMOTIONAL BODILY EXPERIENCE, DEPRESSIVITY AND EATING
DISORDER SYMPTOMS. THE ROLE OF CULTURE.
A new Assessment Tool for Clinical Applications.*

presented by
MARÍA ISABEL GAETE CELIS

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Dean: Prof. Dr. Klaus Fiedler (Heidelberg University)
Prof. Dr. Pedro Morandé (Pontificia Universidad Católica de Chile)
Prof. Dr. Manuel Kukuljan (Universidad de Chile)
Advisors: Prof. Dr. Manfred Cierpka (Heidelberg University)
Prof. Dr. Guillermo de la Parra (Pontificia Universidad Católica de
Chile)
Prof. Dr. Juan Pablo Jiménez (Universidad de Chile)

*To my mother, María Inés with whom I have firstly lived the lovely
emotional bodily experience of becoming a human being.
To my children, Antonia and Manuel, with whom I have had the best
emotional bodily experience: to become a mother.
...And to my patients who were my inspiration to begin with this
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ABSTRACT

The present dissertation is aimed at developing a conceptualization and operationalization of emotional bodily experience (EBE) that be clinically useful, and able to distinguish between genders, and adaptive and maladaptive forms of bodily experience in association with depressivity and eating disorder symptoms. It is also aimed at exploring how culture shapes emotional bodily experience of individuals. Thus, a first part corresponds to the development of the notion of *emotional bodily experience* built upon the phenomenology of the body and the phenomenology of affectivity. Likewise, it was also proposed the hypothesis of the *embodied defense* for the comprehension of eating disorder psychopathology. Secondly, the development and validation of the Emotional Bodily Experience Questionnaire (EBEQ) was conducted through three different studies: A first study aimed at the operationalization of the EBE construct into a self-report questionnaire, a second study for the validation of the preliminary theoretical structure of the questionnaire, and a third study testing the psychometric properties of the final structure of EBEQ. Finally, a third part of this dissertation was aimed at testing the association of EBEQ with clinical and cultural variables. The methodology used was cross-sectional, comparative and exploratory while this investigation is rising a new variable (EBEQ) which it is expected to be a first step for further research. Two samples were recruited: a Chilean sample of 402 young adults, and a German sample of 50 young adults. Results present a final version of 27 items and 6 scales of EBEQ with good psychometric properties, reliability and validation indexes. Likewise, satisfactory ability for distinguishing between groups was observed. It gives support to the hypotheses about gender differences with higher levels of attention to the body and higher levels of affect intensity of bodily experiences for women compared with men. Likewise, EBEQ showed satisfactory ability to distinguish

between a clinical sample (27 females referred to a specialized treatment with a diagnosis of eating disorder (ED)) and a non-clinical sample (183 females from general population sample). ED patients showed usually paying more attention to their bodies, paying more attention to their bodies when feeling negative emotions, and at contexts of public exposure. Non-clinical sample showed an overall significantly higher level of affect intensity of bodily experiences than ED patients.

Otherwise, it was observed significant positive associations between depressivity and attention to bodily signals of negative emotions (ABRS), and between ABRS and ED symptoms within the Chilean sample from general population. A significant mediation effect was observed of ABRS in the association between depressivity and eating disorders giving support to the *hypothesis of the embodied defense* which proposes that ED symptoms express a defense mechanism against negative emotions by means of an increased attentional focus on the body retaining by this means a sense of safety and control.

Finally, comparison of emotional bodily experience between Germans and Chileans showed Chileans paying significantly higher attention to their bodily signals of basic emotions and of negative emotions than Germans. By its part Germans showed paying usually more attention both to their bodies and to the environment than Chileans. There was a significant and positive association between attentional focus on bodily signals of negative emotions and ED symptoms with a significant moderating role of culture, while this association remains significant for Chileans but not for Germans.

The role of emotional bodily experience on gender, clinical and cultural variables is discussed highlighting the relevance for the development and validation of psychotherapeutic approaches which considers the relevance of bodily experience on the expression of psychopathology. It is also discussed future directions for the study of

adaptive and maladaptive forms of EBE and the role of *implicit* and *explicit* forms of bodily awareness, with attentional focus on the body taking part of the explicit form.

INTRODUCTION

“When I was little and I got scared –scared because Mommy was going up to beat me up- I’d stare at a crack in the ceiling or a spider web on a pane of glass, and pretty soon I’d go into this place where everything was kind of foggy and far away, and I was far away too, and safe.”
(Bromberg, P. M., 2001, pp. 904-905)

The present investigation is based upon the assumption that self-organization is bodily shaped, with body conveying consistency and coherence to the self. Furthermore, what we call ‘mental health’ is actually a healthy sense of belonging to the world or ‘well-being’ through our living bodies or embodied experiences (Merleau-Ponty & Smith, 1996; Ratcliffe, 2009; Varela, Thompson, & Rosch, 1993). Since the early beginnings of psychology discipline, James (1890) based his *theory of emotions* upon the body through focusing on somatic changes as triggering the overall subjective emotional experience. Since then, the notion of emotions as key bodily processes on stability and adaptability of individuals is gaining attention in the understanding of somatic expressions of psychopathology. In this regard, Damasio’s hypothesis of the ‘somatic markers’ is a good example of this trend, while gives plausible explanations about how bodily signals and bodily changes of emotions play a fundamental role in daily decision making processes (Damasio, 2008). By its part, Fuchs proposals of a *phenomenology of affectivity* (T. Fuchs, 2013) claims a different understanding of depression by including both the body and the intersubjective atmosphere in which depressive symptoms take part. He highlights that the western traditional understanding of psychopathology tends to describe depression as an ‘inner-mental’ and individual disturbance in which cognitive and affective symptoms are mostly considered for diagnosis and treatments, disregarding (or at least underestimating) the role of somatic and inter-subjective aspects. However, evidence has shown many cultures expressing depression through

somatic complaints (Chentsova-Dutton et al., 2007; Gureje, Simon, Ustun, & Goldberg, 1997; Kirmayer, 1984; Kirmayer & Groleau, 2001; Krueger, Chentsova-Dutton, Markon, Goldberg, & Ormel, 2003), which led some authors, both in Chile and other countries, to alert about primary care services burden (Florenzano, Fullerton, Acuña, & Escalona, 2002; Miranda Hiriart & Saffie Gatica, 2014; Olfson & Gameroff, 2007) with a broad spectrum of somatic complaints such as pain (back pain, headache, fibromyalgia, etc.), fatigue, gastrointestinal symptoms, psychomotor inhibition, loss of drive, between others.

Thus, in agreement with evidence, understanding affective disorders as a *bodily disturbance* seems reasonable (T. Fuchs, 2013). Likewise, the notion of *bodily resonance of emotions* as taking part of the embodied disturbance of depression and affective disorders highlights how psychopathology is always an embodied phenomenon.

Up to now, there is an increasing interest on exploring the bodily experience of psychopathology, and affective disorders. In fact, there are several studies available which are focused on *mental health* in relation to *bodily awareness*, *emotional bodily awareness*, *interoceptive sensitivity*, *interoceptive awareness*, between others (Anderson, 2006; Furman, 2013; Harshaw, 2015; Hart, McGowan, Minati, & Critchley, 2013; B. Herbert, & Pollatos, O. , 2012; B. M. Herbert, Herbert, C. and Pollatos, O., 2011; Mehling et al., 2009; Mehling et al., 2012; O. Pollatos, Dietel, A., Herbert, B. M., Wankner, S., Wachsmuth, C., Henningsen, P., Sack, M., 2011; O. Pollatos et al., 2008; Price & Thompson, 2007; Schaefer, Egloff, & Witthöft, 2012). Most of those studies were conducted in laboratory settings by means of interoceptive tasks that assess interoceptive sensitive and/or interoceptive awareness, among them, the ‘heart beat detection task’ (HBT) (Schandry, 1981) has been the most widely used. Thus, in regard

to self-report measures the instruments that assess bodily experiences for being used on population studies (Anderson, 2006; Brown, Cash, & Mikulka, 1990; Cash, Phillips, Santos, & Hrabosky, 2004; Mehling et al., 2009; Mehling et al., 2012; Price & Thompson, 2007; Shields, Mallory, & Simon, 1989; Stanghellini, Castellini, Brogna, Faravelli, & Ricca, 2012) are scarce and lacking of coherence regarding theoretical definitions about what are they measuring. Thus, high coincidences and overlapping can be found between those measures and *alexithymia* construct (while focusing on emotional awareness), *body image* concept, *bodily habits and attitudes*, *bodily awareness*, *body connection*, *interoceptive awareness*, etc. This multiplicity of operational concepts, reveals the complexity of the bodily experience phenomenon, and the lack of agreement on its theoretical definitions. In this regard, the very idea of *body image*, broadly applied in the field of eating disorders, has its own history of theoretical contradictions that led into a tradition of confusions and to a variety of measurements under the frame of *body image* that has been difficult to integrate into a coherent body of knowledge. Thus, the search for conceptual clarity in the field of bodily experience is still an open ended discussion in which both philosophy, cognitive sciences, neurosciences, and psychology has been called to participate. But at least for now, the chance for a consensual use of terminology is far from being accomplished. Thus, with the intention of improving the understanding of the use of terminology for the present dissertation I would like to make some precisions.

First, two usually used terms in this field are body schema and body image that Merleau-Ponty carefully distinguished by defining *body schema* as the “lived body”, or the ongoing experience time to time of the body, including by the way both time and space dimensions. It could be thought as a ‘first person’ position of the lived body expressed in a dancer when is fully engaged in following the music with the body. At

this moment, the body of the dancer is not the focus of attention rather the very medium through which the music is bodily and gracefully lived. So the body is in a ‘first person’ position in which the changing movements and postures are just occurring out of conscious or voluntary focus of attention. Further it is probably that if the dancer begins to focus the attention at each movement the fluidity and graceful should be lost. On the contrary, it is used the term of *body image* which is defined as the conscious mental representation of one’s own body (Merleau-Ponty & Smith, 1996; Schilder, 1950; Toombs, 2001) that could be observed when something novel or disturbing occurs with the body calling for the conscious directedness of attention to it as occurs with the experience of being stung by a bee, something painful is happening with ‘my leg’ as object of carefully attention. Both body schema and body image are considered different inherent aspects of the general notion of *bodily awareness*. Body schema expressing a pre-reflective and *implicit* awareness of the body and body image a reflective and *explicit* bodily awareness (Gallagher, 2005).

For the aims of the present investigation bodily awareness will be used in a broad sense, comprising both its explicit and implicit forms which are also understood as *a conscious attentional focusing on the body*, and a *pre-reflective experience of the body*.

Further, the theoretical development of this thesis leads to a general notion of *emotional bodily experience* (EBE) which will be extensively exposed at the first part and will state the basis upon which the rest of the empirical phases will be unfolded. Briefly, *emotional bodily experience* aims at enlarging bodily awareness notion by opening the opposition between body schema and body image integrating both into the experience of the body as a complex multi-dimensional phenomenon.

The second part of this thesis is aimed at developing the operationalization of EBE concept through a self-report questionnaire that be clinically useful, and with

explanatory power for comparisons between different groups of individuals (cultures, genders, non-clinical and clinical samples, etc.), so by this means a three-dimensional and cross-situational questionnaire of Emotional bodily Experience (EBEQ) is presented assessing the levels of attention to body and to the environment, along with the affect intensity of different bodily experiences. The third part of this thesis is aimed at testing the association of Emotional Bodily Experience questionnaire (EBEQ) with clinical and cultural variables, so two studies are presented at this section: A *first study* which looks for associations between the attentional focus on bodily signals of emotions, depressivity and eating disorders in Chilean adults from general population; and a *second study* exploring the role of culture on emotional bodily experience through comparisons between German and Chilean samples.

It is expected that this thesis contributes with the understanding of both adaptive and maladaptive forms of bodily experience, through exploring when, for who, and how an attentional focus on the body and on the environment is or not adaptive, and when, for who, and how affect intensity of bodily experiences is or not adaptive.

**PART I. THEORETICAL BACKGROUND AND
COMPREHENSIVE MODEL OF EMOTIONAL BODILY
EXPERIENCE: THE EMBODIED DEFENSE.**

ARTICLE: From Body Image to Emotional Bodily Experience in Eating Disorders. *Journal of Phenomenological Psychology*, 2016.

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From Body Image to Emotional Bodily Experience in Eating Disorders

Abstract

This paper is a critical analysis and overview of body image conceptualization and its scope and limits within the eating disorders (EDs) field up to the present day. In addition, a conceptualization proposal of *emotional bodily experience* is advanced in an attempt to shift towards a more comprehensive and multidimensional perspective for the *lived body* of these patients. It mainly considers contributions from phenomenology, embodiment conceptualizations and a review of the empirical findings that shed light on the emotional bodily experience in eating disorders. It proposes an ‘embodied defense’ that leads patients to experiencing their own bodies as objects. This proposal highlights the need for new psychotherapeutic tools in the treatment of EDs that take into account the bodily resonance of emotions and their use for improving adaptive responses to the environment: it calls for helping patients to recover the subjective experience of their bodies.

Key words: embodiment, embodied affectivity, affective intentionality, bodily resonance, embodied defense.

“I know it sounds crazy, but when I get scared, I really need some fixed points in my life. I need to feel my skeleton.”

(Skårderud, F., 2007b, 168).

The relevance of bodily experience for the development of the eating disorders field (EDs) lies in the need for a better understanding of the underlying factors that could explain the emergence of symptoms; this understanding may lead to the improvement of the psychotherapeutic tools currently available. The development and application of the body image construct to the EDs field reflects the heritage of the misunderstanding of the original distinction of body image and body schema by Merleau-Ponty. This misunderstanding leads to a loss of Merleau-Ponty’s notion of the lived body or subjective experience of the body (body schema) by focusing, both in the comprehension and treatment of EDs, mainly on the body as an object that could be perceived or distorted. It is argued here that the same loss of the subjective or lived body occurs in patients escaping from their emotional bodily experiences by focusing on their bodies as objects. Thus, it could be said that a curious isomorphism has prevailed between the form of presentation of ED symptoms and the development of theory and practice towards them up to now. Thus, from the theoretical model proposed here it is assumed that the body image disturbance is not the whole story for explaining symptoms; moreover it is considered that emotional bodily experiences, especially negative ones, are threatening for patients so as to block them out by focusing on their bodies as objects. Therefore, the present work first focuses on the cross-disciplinary difficulties of conceptualizing the *body image*. Then it proposes a shift away from using the body image construct in understanding the bodily phenomena in eating disorders, which finally leads to a proposed conceptualization of *emotional bodily experience*.

Body Image Conceptualization

The concept of body image has its origins in Schilder's definition as “the picture of our own body which we form in our own mind” (Schilder, P., 1950, p. 11.). Schilder proposes that body image is more than perceptual sensations considering that “there is always a personality that experiences the perception” (p.15). Thus, the concept put forward by Schilder considers actions and emotions as inseparable parts of the body image; there is no perception without actions and there is no action without emotions. This is what Schilder calls the libidinous structure of the body image. However, his clear intention to develop a multidimensional concept has not completely held up over time. Slade (1994) defines body image as a broad mental representation of body shape influenced by biographic, sociocultural, and biological factors which change over time, thus taking the dynamic and changing nature of body image into account. However, both conceptualizations had a representational emphasis, which was retained by researchers and theorists over time, considering body image as a mental image of one's body that could be captured in an objective way, almost as a ‘picture.’ This representational aspect of the body image concept has led clinicians to help patients adjust their ‘distorted lens’ to their real and ‘objective’ bodies through mirror exposing, virtual reality, corrective exercises, and video-feedback techniques (Delinsky & Wilson, 2006; Farrell, Shafran, & Lee, 2006; Ferrer-García & Gutiérrez-Maldonado, 2012; Garner & Garfinkel, 1997; Jose H Marco, Perpina, & Botella, 2013; Trentowska, Bender, & Tuschen-Caffier, 2013). The question is if such an objective image of our bodies is obtainable at all, not only for patients but for anyone. In this regard, there is even some evidence of a trend in the normal population to underestimate their weight in comparison with the ED population which showed a higher objectivity in self-evaluation (Garner, Olmsted, Bohr, & Garfinkel, 1982; Jansen, Smeets, Martijn, & Nederkoorn, 2006).

Merleau-Ponty (1945/ 1962) first proposed the concept of the “lived body” in association with the notion of the body schema, being quite careful to differentiate between perceptual impressions (the perceived body or body image) and the dynamic sensori-motor functioning of the body in its environment (the lived body or body schema). However, since the mistaken English translation of Merleau-Ponty's body schema into body image (Gallagher, 2001), there has been a long history of conceptual and terminological confusion up to the present. Therefore, most studies on body image disturbance are unavoidably affected by this confusion. Gallagher points out that it is unlikely that body image could be everything that has been posited by a wide variety of perspectives and disciplines. He suggests that it would be advisable to leave this term behind and look for alternative conceptualizations of embodiment. The concept proposed here belongs to this search for alternatives.

Between the 1970s and the 1990s, psychodynamic concepts of body image came closer to the idea of a non-objective image of the body. Contributions from Fisher and Cleveland (1958) along with Krueger (2002) put forward the developmental aspect of one's body image where early bodily experiences with attachment figures become relevant for the later sense of self, especially via proprioceptive bodily experiences.

Within the field of eating disorders, Bruch (1971) also drew early attention to the surprisingly vague use of the concept, stating that the broad use of the expression 'body image' in the psychiatric evaluation of patients was not sufficiently developed, either theoretically or empirically, to allow measuring it or its components with any certainty. She considered that the range of attitudes that patients show goes far beyond the early definition of body image, highlighting the role of a sense of control and of body ownership along with an accurate interpretation of interoceptive stimuli, among other bodily attitudes. From the 1990s onwards there was a shift favoring cognitive behavioral

approaches (Cash, & Pruzinsky, 1990; Fairburn, 2008; Rosen, 1997, Thompson et al., 1999). Rosen (1997) described the clinical features of body image disturbances, including different types of distorted thinking such as overvalued, obsessional, and delusional, along with various associated behaviors such as withdrawal and isolation. Likewise, specific cognitive behavioral psychotherapeutic strategies were developed, narrowly targeting the symptomatic level. Among these strategies, one of the best known was developed by Fairburn (2008). It addressed over-evaluation (of shape, weight, and eating), shape checking, shape avoidance, feeling fat, and the mindsets that sustain the symptomatology. Fairburn (2008) proposed a very detailed and logical procedure of working mainly at the cognitive and behavioral levels. Even though he recognized that the feeling of fatness could be associated with a mislabeling of certain *emotions and bodily experiences*, this idea was addressed in connection with problem solving, a mainly cognitive approach where the problem to solve is the mislabeling of emotions as a cognitive distortion. In this paper it is considered that through adjusting the perceptual and cognitive distortions, the emotional bodily experience disturbances will not necessarily change, particularly if they play the role of a defense mechanism against anguish and depressive feelings that the patient doesn't seem able to cope with. In this regard, Cash & Pruzinsky (2002) stress that "if, as scientists and clinicians, we can appreciate the breadth and depth of bodily experiences, then we have the capacity to prevent and relieve the suffering of persons whose body images undermine the quality of their lives." (p.7).

Thereafter, body image terminology proliferated as research progressed, leading Cash & Pruzinsky (2002) to state that there is a lack of empirical and theoretical integration within and across disciplines regarding the conceptualization of body image. Nonetheless, a great number of studies and instruments have been developed, which in

turn has generated a series of meta-analytic studies and reviews intended to organize and give coherence to this body of knowledge. However, studies have concluded that the lack of a clear conceptualization of body image makes it very difficult to integrate the accumulated knowledge into coherent theories, and that more research is needed to shed light on what constitutes the normal range of attitudes towards the body. Furthermore, it was also pointed out that there were problems with defining body image which greatly impaired the authenticity of the instruments (Cash & Deagle, 1997; Farrell, Shafran, & Lee, 2006; Hsu & Sobkiewicz, 1991; Probst, Pieters, & Vanderlinden, 2008; Sands, 2000; Scott Mizes, Heffner, Madison, & Varnado-Sullivan, 2004; Skrzypek, Wehmeier, & Remschmidt, 2001; Thörnberg, Nordholm, Wallström, & Svantesson, 2005; Túry, Güleç, & Kohls, 2010). Farrell, Shafran, & Lee (2006), in a review of empirically based treatments, concluded that treatments for body image disturbance are hindered by the lack of appropriate theoretical models and that such analysis is necessary for the development of effective interventions. The conceptualization proposed here is aimed at closing this gap by going beyond body image disturbances as explanations for EDs symptoms, assuming that there is a more profound disturbance of the patients' lived bodies.

Empirical Contributions to the Emotional Bodily Experience Conceptualization

There are some qualitative or methodologically mixed studies which are an important contribution to the comprehension of what bodily experience means for ED patients. Skårderud (2007a, 2007b, 2007c) explored, in a series of qualitative studies, the symbolic role of the body and the subjective comprehension of *body-food pride and shame* experiences in patients with anorexia nervosa (AN). His findings lead to an assumed impaired *reflective functioning* (Bateman & Fonagy, 2006; Fonagy et al., 2002) in AN patients, for whom the body becomes a concretized metaphor. Skårderud

developed specific metaphors of the bodily experience in a group of AN patients where the *as if* of the metaphor is replaced by *is*, thus highlighting the immediate connection between physical and psychological realities such as the sense of bodily expansion in stressful situations. In this regard, Atwood and Stolorow (1984), in their explorations in psychoanalytic phenomenology, analyzed this ‘concretization’ in persons with vulnerable self-organization, defining concretization as “the encapsulation of structures of experience by concrete, sensorimotor symbols” (p.85). This creates a relieving distance from unpleasant experiences as a means of maintaining one’s sense of reality and of a coherent and ordered existence. The studies of Skårderud as well as Atwood and Stolorow support the idea of an objectification of the body as a respite from negative feelings.

Roth & Armstrong (1993), on their part, showed that subjects have a considerable cross-situational variability with regard to their experience of bodily thinness-fatness, especially in relation with their affective state, performance evaluation, public scrutiny, self-consciousness, and the nature of their interpersonal field. Likewise, a qualitative study developed by Jeppson et al. (2003) explored the nature and function of bingeing and purging in BN patients by a semi-structured interview applied to eight bulimic patients, finding that both behaviors are attempts to cope and control, to improve self-regard and social status, to regulate emotions, and to get physiological reinforcement.

Otherwise, the aforementioned study by Jansen et al. (2006), which replicates the controversial previous results of Garner et al. (1976), forces a reflection on how the body image disturbance has been understood in the field of eating disorders. They found that eating disordered patients showed a significantly higher objectivity in their self-evaluation about their weight (level of coincidence or discrepancy between how you assess your own weight and how the others do it) as compared with normal control samples.

Another promising line of research yielding data about the bodily experience of EDs comes from neuroscience. Strigo et al. (2013) developed a study that looked for neural correlates of pain anticipation and processing in women who had recovered from AN (REC AN group) compared with healthy controls. Their findings showed that both groups activated the right anterior insula (rAI) during pain anticipation, but that this activation was significantly greater in the REC AN group. The rAI has a key role in perceiving and modulating the physiological state of the body, processing homeostatic emotions and probably being an integrator of interoceptive, cognitive, and emotional experiences. The contradictory issue is that, despite the increased activation of the rAI in the REC AN group, the patients did not rate the upcoming painful stimulus as more aversive than the control group. This observed mismatch in the REC AN group between objective and subjective experiences is explained by the authors as a probable abnormal integration and disconnection between reported and actual interoceptive states. The authors suggest that most likely the REC AN group showed a positive correlation between alexithymia and rAI activation because they are well able to experience emotions, in fact showing hyperarousal to them; however, the REC AN patients are unable to effectively appraise and identify emotions because they suppress them intentionally, which implies a high level of focusing on bodily signals in order to control threatening emotions. The suppression of emotions shown by this study gives support to the ‘embodied defense’ hypothesis presented here.

Otherwise, the findings of Brøsted’s (2005) reissue of the Alien Hand Experiment (TAHE, Nielsen, 1963, as cited in Brøsted Sørensen, 2005), showed that BN patients were more convinced by what they saw than by what they felt, losing their sense of agency and confusing the alien hand with their own hand, showing also the objectification of the lived body in ED psychopathology.

The contribution of the Embodied Mind Concept

“The ego is first and foremost a bodily ego”

(Sigmund Freud, 1925/1976), p.26

In agreement with Johnson and Lakoff (Johnson, 1987; Lakoff & Johnson, 1999), and in agreement with the phenomenological tradition, we propose that the mind is always based on bodily perception and sensorimotor experiences. *Embodiment* appears to be a more thorough conceptualization than *the body*, considering that the embodiment approach is not about the body *per se* but rather about bodily being in the world as an existential condition that involves both subjective and intersubjective experiences. Putting it in Behnke's terms (1997), the individual's signature constitutes a recurrent bodily configuration that includes particular shapes and relations between body parts, a habitual set and quality of movements and some particular bodily tonus responses (more relaxed or tense depending on the circumstances) which Behnke regards as an ongoing way of *holding my self* and of *self shaping*. A woman, for example, who has danced since infancy will probably show a particular bodily configuration pattern; in contrast, an individual who experienced some form of physical abuse in his/her infancy will express some other bodily configuration pattern as a kind of *embodied* implicit relational knowledge (Fuchs 2012a). In Behnke's terms, this means the actual presence of the past in the body. Thus, the bodily experience that is relevant to this article has to do with these bodily patterns that shape the embodied self and that occur in the relational domain of intersubjectivity and intercorporality.

In this regard, Stanghellini et al. (2012) have also argued that a more profound disturbance of the experience of the body is affected in EDs, namely *embodiment*. They propose that eating disordered patients experience their bodies first and foremost as an object seen from the other's perspective. Based on Sartre's notion of the *lived body for*

others (Sartre, 1943) as another dimension of embodiment, they propose that ED patients' lack of identity pushes them to shape their body by external and more 'objective' parameters: their weight, the mirror, the gaze of others, etc.

Fuchs & Schlimme (2009) have suggested that there are two main forms of embodiment disturbances: one affecting the subject's body or the pre-reflective embodied sense of self, associated with depression and schizophrenia, and another affecting the explicit body awareness or body image associated by the authors with eating disorders and somatoform disorders, among others. They distinguish between what they call hyperembodiment for depression and disembodiment for schizophrenia, describing melancholic depression as a lived body that becomes heavy, solid, and resistant to the individual's intentions and impulses.

From the point of view that is shown here, one could think that eating disordered patients show a combination of both forms of embodiment disturbances: on the one hand affecting the explicit awareness of the body as the body image disturbance aforementioned, while on the other hand, the pre-reflective embodied sense of self also seems disturbed in association with co-morbid depressive symptoms. Further, ED symptoms (including body image disturbance) could reflect a failed attempt to deal with the bodily feelings of heaviness, physical or solid resistance as they are described by Fuchs & Schlimme (2009).

Herbert & Pollatos (2012), in their review of interoception and embodiment, highlight the close relationship between alexithymia and EDs, proposing that alexithymia features are related to low interoceptive awareness and, in turn, to poor decision making ability because emotions as a basic resource for decision making (Damasio, 1994) are insufficiently available.

Contribution of the Embodied Affectivity Model

The phenomenology of affectivity proposed by Fuchs (2013), connecting body, self, and the world, sheds light on the emotional bodily experience through distinguishing between short-lived, intense, object-related states, and longer-lasting objectless states that remain in the background of awareness. This basic distinction differentiates between *emotions* and a variety of *background feelings* (moods, vitality, existential feelings, atmospheres).

Background feelings share the features of being in the background of awareness, lacking an ‘aboutness’ (not needing a special triggering situation, motivation or content), and having no definite points of beginning and ending. Background feelings do not involve the body as an object of awareness, but rather as the medium by which being-in-the world is experienced. As a paradigm for background feelings, consider the feeling of being alive or vitality. It is assumed that such feelings are not in a steady state but move through states in which they are heightened, intensified or diminished. This may be illustrated by the basic polarities of well-being and of upset through which the feeling of being alive is expressed. In feelings of well-being, the body is the medium for experiencing the world, while in feelings of upset or illness the surroundings withdraw into the background and the body itself becomes the focus (Fuchs, 2012b, 2013).

In this regard, William James (James, 1890) proposed a distinction between the self as known and the self as knower, depending on where the body is situated with regard to attention. James asserted that individuals could disown their bodies in some situations and be entirely their bodies in others. Thus, in bodily states of unbearable pain the body demands our attention as an object (body as known) whereas while lying on the beach and listening to the waves, we are barely aware of our body (body as knower).

However, emotional bodily sensations seem to be different from physical sensations. With emotions, the subject and object positions must be dynamically intertwined (you must be ‘here’ and ‘there’) in order to enable adaptive responses. This is what affective intentionality conveys; you should feel what is going on at the level of your bodily sensations but you should also be aware of what is going on outside in the world. It is through the emotional bodily sensation of fear that you are anxiously directed towards a frightening situation. The *feeling body* is the way you are emotionally related *to the world*.

Thus, unlike background feelings, emotions are distinguished for being short lasting, for having an identifiable beginning and ending, and for their intentional content or ‘aboutness;’ they are always directed to persons, objects and events in the world. This is broadly known as the *intentionality* of emotions (Solomon, 1976, Frijda, 1994, De Sousa, 2010) or affective intentionality. Feeling some bodily sensations can be understood as a specific emotion with regard to some intentional meaning that configures those bodily sensations *as* feelings of fear, sadness, anger, etc. Then, intentionality is not neutral; it concerns what is especially valuable and relevant for the subject which could also be understood by the concept of affordances (Gibson, 1978). Affective affordances are features of the objects that appear to us as ‘important,’ ‘worthwhile,’ ‘attractive’ or ‘repulsive,’ etc. Moreover, the intentional object of an emotion (world reference) is continuously integrated with self-related aspects (self-reference). Thus, fear as reference to something that is perceived as a threat (world-reference) is associated with aspects of oneself that are felt as weak (self-reference).

Considering that emotions are salient bodily sensations in the context of intentional directedness, they imply a change in one’s awareness of bodily signals, calling for a directedness to one’s bodily state without involving an objectification of the body

because the first person or subject position of the body is required to cope with situations in the world. This point is of critical relevance in understanding the embodiment disturbance in eating disorders that will be discussed below.

Further, *bodily resonance* plays a crucial role for the emotional bodily experience as it is proposed here. Emotions are experienced through the resonance of the body, including all kinds of local or general bodily sensations such as warmth or coldness, tickling or shivering, tension or relaxation, constriction or expansion, sinking or lifting, flushing or paleness (the face and the gut are particularly rich fields of bodily resonance). They comprise autonomic nervous activity, muscular activation, bodily postures, and related kinesthetic feelings.

It is also considered here that emotions imply two components of bodily resonance: 1) a *centripetal* or 'affective' component which means to be *affected, moved or touched* by an event, and 2) a *centrifugal* or 'emotive' component which involves a bodily action readiness, implying specific movement tendencies towards hiding, running away, clenching your fists, preparing to fight, etc. (cf. Fuchs 2013). This could be understood as a *circular interaction* between 'affection,' 'perception,' and 'movement' that it is part of every encounter between the subject and the world: you are 'affected by' a perceived object or situation through your bodily resonance and you feel 'moved to move' with regard to the intentional object accordingly (Fuchs, 2013, Fuchs & Koch, 2014).

Emotional Bodily Experience: A Proposed Conceptualization

Emotional Bodily Experience is conceptualized here as a *multi-dimensional and dynamic phenomenon which includes affective and emotive aspects of bodily resonance*

along with implicit, explicit, narrative, and functional dimensions, and which conveys coherence and internal consistency to the self (see figure 1 below).

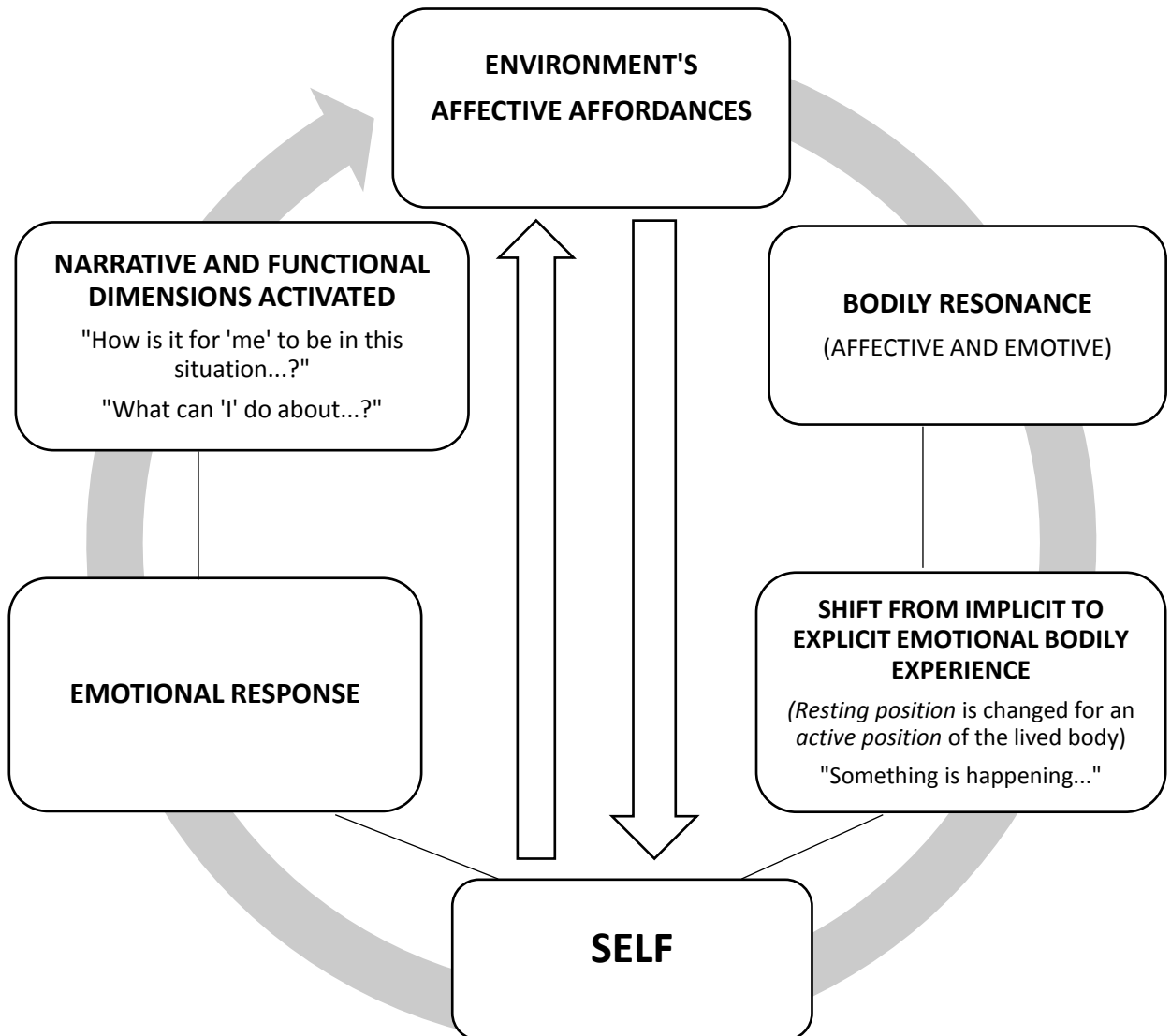


Figure 1. COMPREHENSIVE MODEL OF EMOTIONAL BODILY EXPERIENCE. Based on the Embodied Affectivity Model developed by Fuchs, T. (2013), Chapter: The Phenomenology of Affectivity in Fulford, Davies, Gipps, Graham, Sadler, Stanghellini & Thornton (Eds.). *The Oxford Handbook of Philosophy and Psychiatry* (612-631). Oxford: Oxford University Press, and Fuchs, T. & Koch, S. (2014). Embodied Affectivity: on moving and being moved. *Frontiers in Psychology*, 5, 1-12.

Therefore, the dynamic aspect of emotional bodily experience could be understood as the changing configuration of bodily sensations through varying relational contexts that expose the subjects to different relative positions towards themselves, their bodies and the others (e.g. the aggressive approach of someone leads the subject to an awareness of his bodily sensations as a warning signal of fear preparing him to run away). This dynamism may only be accounted for by the bodily experience of the varying intensity of emotions. This changing intensity conveys by itself the triggering stimulus for shifting from an *implicit* emotional bodily experience (or ‘resting’ position of the body) to an *explicit* emotional bodily experience (or ‘active’ position of the body). The threshold can vary from one individual to another and from healthy to disturbed forms of embodiment defining what could be termed ‘sensitivity thresholds.’ Likewise, well-being bodily states are the dominant state of implicit bodily experience (the bodily signals being in the background of experience), allowing the world to appear closer, more interesting, and accessible, whereas discomforting states such as fatigue or sickness tend to blur the surroundings and to establish a distance between the self and the world (Fuchs, 2013).

Along with the aforementioned *intentionality* and *bodily resonance* (affective and emotive), emotions are also characterized by their *function and significance* which means that they provide us with a basic *orientation* about what really matters to us (Fuchs 2013): they are a bodily felt recognition of a meaningful change in the world that calls the lived body to action. Emotions may be understood as *action readiness* at a basic level (Frijda, 1986). The bodily changes inform us about something appealing or repelling and prefigure potential movement responses. This means that emotions also provide us with a basic orientation about priorities and goals for decision making. Thus, if the bodily resonance is modified, the subject’s affective perception and action tendency will consistently change as well which seems a key aspect of the disturbance of embodiment

of ED patients. Because of the suppression of the bodily resonance of emotions, they show a detachment from the world and an obsessive focus of attention to their bodies as ‘the object’ to deal with.

Finally, emotional bodily experience is viewed both as a trait and a state, meaning that it conveys coherence and identity to the self, but that within its consistent functioning there are also cross-situational variations that play an adaptive role. As a trait, emotional bodily experience characterizes individuals by their general emotional bodily awareness, their personal threshold for shifting from implicit to explicit dimensions, and the individual ability to respond accordingly, both in quality, quantity, and opportunity. As a state it defines the active awareness of emotional bodily signals (explicit dimension) that call for attention and the corresponding adaptive response (if one feels bodily sensations of shame, one feels moved to act according to the need of relieving, e.g. through hiding one’s face, dropping one’s gaze etc.).

Dimensions of Emotional Bodily Experience

(a) Implicit Bodily Experience

Implicit bodily experience corresponds to the bodily signals that are continuously informing one about the organism’s general state but also convey a sense of identity, integrity, and existential continuity. It doesn’t require any active attention of the subject and could be compared to a movie score which is part of the atmosphere of the story but always remains in the background. Therefore, vitality feelings, mood states, and a variety of affective states are part of this background feeling of the body, as a pre-reflective and undirected bodily awareness which accompanies every intentional feeling, perception, and action (Fuchs, 2013). As Damasio (1994) proposes, these continuous *background feelings* represent a key feature for a healthy sense of self-integrity. Further, implicit

bodily experience reflects the body as the means by which subjects live their lives and keep an active relationship with the world. This general background of the lived body is continuously changing, both in the intensity of the sense of vitality as in the coloring of this feeling.

(b) Explicit Bodily Experience

Explicit bodily experience requires an active awareness of the body and appears whenever something novel and relevant, both for physical and psychological integrity, occurs. By means of the bodily resonance you feel affected and moved and the implicit becomes explicit, inducing the subject to notice or formulate what is going on through the bodily signals: life comes to conscious awareness, so to speak. Thus, being aware of the bodily sensations of an emotion (sadness, happiness, rage, etc.) may induce you to explicitly think about and formulate what is happening. It means that the emotion is consciously *experienced* by the self, leading the subject to unfold a conscious meaning and make decisions. It may also be described as the expression of an everyday question - how are you? --a question that brings the passive or pre-reflective awareness of the lived body to an active awareness, but can be hard to answer for ED patients. Think, for example, what happens when you meet a person you love: some identifiable bodily signals arise to call your attention, changing completely the emotional experience of your body - you feel touched by and moved to the other. Thus, the explicit dimension is based on the bodily resonance of emotions and it is through this resonance that the experience of the lived body could be verbalized.

(c) Narrative Dimension

You can realize that something is going on with your bodily signals but can fail to recognize and formulate *what* these signals could mean, as was demonstrated by the aforementioned study with recovered AN patients regarding their subjective and objective

response to an upcoming painful stimulus (Strigo et al., 2013). Nevertheless, in healthy conditions, if bodily signals present something novel, strange or intense, the subject will try to find some idea or notion about what is going on. This notion is one of the adaptive skills of individuals in maintaining both physical and psychological integrity.

The narrative of an emotional bodily experience is the story that the self builds upon the notion of what is going on with its bodily signals. To be able to work out what is happening, and to tell a story built upon the basic resources of *implicit and explicit bodily experiences*, allows the subject to make adaptive decisions especially in the social and relational context that human beings have to deal with. The narrative dimension of emotional bodily experience takes part in what Carr (1986), Schechtman (1996), Zahavi (2010) and others have termed the *narrative self*. When confronted with the question “Who am I?” what you formulate depends upon the story you tell about yourself, that is, an open-ended construction in which the narrative of your emotional bodily experiences takes part.

(d) Functional Dimension

The action readiness of emotions comprises muscular activations that prepare us to run away, to attack, to hide, etc., each person choosing what to do with the bodily information that emotions provide. Rage feelings, for instance, could lead us to act against another or not. Apart from that, the expression of the bodily configuration of anger will also express something to others. Thus, emotional bodily experience has both an *active* and an *expressive* function that is associated with different consequences in the relationship between the subject and the world. Both functions offer basic information about what is going on with us, our bodies, and any others we encounter. This is the *creative aspect* of emotional bodily experiences; there is a degree of freedom for making choices which allow the subject to change circumstances by acting in the world.

An Emotional Bodily Experience Model for Eating Disorders: The embodied defense.

In accordance with Stanghellini et al. (2012), the present conceptualization assumes that ED psychopathology is strongly based on disturbances of embodiment, specifically a *disturbance of emotional bodily experience* (see below figure 2). It is also assumed that the symptomatology of ED patients reflects an objectification of their bodies, but different from what Stanghellini et al. (2013) propose. The present model of bodily experience in ED posits that the strong and rigid association of self-experience with the body, by means of its objectification, is a *defense mechanism against emotions*. This defense mechanism allows the patient to replace the *self-with-others* dimension of emotions with a *self-body* relationship through the suppression of emotional bodily resonance, especially when a negative affect is in the background. Thus, the patients' size, weight, and shape become the most important aspects of their bodily experience to focus on, rather than the always changeable and dynamic manifestations of their emotional bodily experience.

In this regard, Lichtenberg (2001) stressed the need for therapists to be alert to patients putting forward their bodily sensations in a broad spectrum of disorders such as anorexia, bulimia, and other psychosomatic disorders, thereby thwarting the therapist's wish to work with the patient's relationships or transferences. He proposes that the strong and rigid focus on bodily sensations has its origins in the procedural memory traces of infancy in which the attachment aspect, the "self-with-others," is replaced by a focus directed towards inner sensations in highly stressful circumstances. Following Fuchs's (2013) proposal, the bodily counteraction as defense against emotional arousal and its bodily resonance often occurs unconsciously: it probably has its origins in early acquired bodily habits.

Therefore, following the *emotional bodily experience model* explained before, the hypothesis is that the most threatening things for ED patients are emotions. The corresponding assumption would be that the emotional bodily experience as part of any intersubjective exchange shows a hyper-arousal for ED patients. It means that being ‘touched’ (affective aspect of emotion) and being ‘moved’ (emotive aspect of emotion) are experienced as an unbearable way of feeling the body. This happens especially in the case of rage because of its kinesthetic sensations of expansive movement which make the patients feel losing control. This feeling in turn is displaced to a fatness sensation which, while also uncomfortable, they feel able to manage or deal with. Further, patients raise *defenses against the implicit and explicit bodily experiences of emotions* (by suppressing their *bodily resonance*). Without bodily resonance, they are unable to build a narrative based on their implicit and explicit emotional bodily experiences. In this regard, Fuchs (2013) posits that if the bodily resonance is modified in specific ways, the affective perception of a given situation will change accordingly. In this case, it shifts to a relieving ‘nothing relevant is happening here.’ Likewise, the author highlights that without emotions the world becomes something without meaning or significance, having nothing that would attract, repel, or motivate us to act. The affective intentionality of emotions is lost: this sort of ‘neutrality’ is precisely the state that ED patients seek to achieve. Thus, in replacing the threatening objects in the world, they rigidly focus on their bodies as objects both for controlling and for manipulating. This is what could be called *the tyranny of the self over the body*, implying a *disturbance of emotional bodily experience*.

Likewise, the ‘too much’ of emotions turns into a ‘too much’ of food, or a ‘too much’ of the body felt as heaviness or fatness (the physical sensation of heaviness often reflects being burdened or overwhelmed by negative affects). The relief of vomiting food is an emotional relief, food intake restriction leads to an emotional relief through the sense

of power and control. Binge episodes are mostly ways of ‘eating emotions’ that could be driven out by vomiting, but are not expressed in the real world. Finally, feeling one’s skeleton or one’s trained muscles represents a source of security and certainty (Skårderud, 2007b). As a coping strategy, which is called here *embodied defense* (see below figure 2), patients use their bodies as the object towards which emotional arousal is directed.

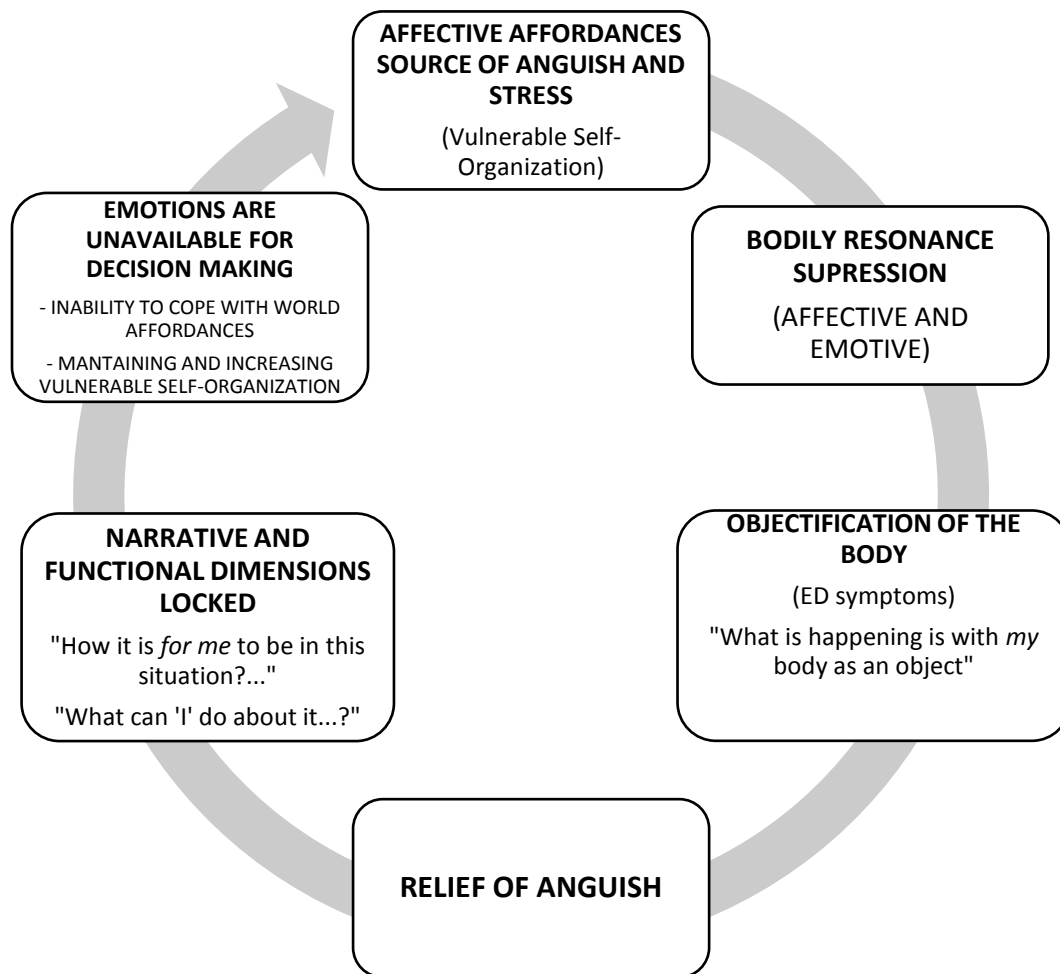


Figure 2. COMPREHENSIVE MODEL OF EMOTIONAL BODILY EXPERIENCE DISTURBANCE IN EATING DISORDERS: The Embodied Defense Mechanism.

that bodily signals are the basic resource from which the subject can make adaptive decisions, this *bodily resonance suppression* leads to a *loss of the functionality of emotional bodily experience*, leaving the patient without tools for acting creatively or, in other words, with a very limited choice of ‘being in the world.’ As Ratcliffe (2009) remarked, “what we find in psychiatric illness (and more generally) is a wide variety of

alterations in the sense of belonging to the world, all of which implicate the feeling body.” Both the *expressive* and the *action-inducing function* of emotions are locked. In agreement with what Fuchs (2013) calls *body defenses*, the lack of emotional bodily resonance impedes the perception of corresponding affective affordances in the environment, which represents a huge challenge for psychotherapeutic interventions having almost no emotional material to work with.

Therefore, the latter represents both the consequence and the beginning of the whole vicious circle: the suppression of emotional bodily resonance leads to a lack of awareness of what is at stake for the patient in a given situation which, in turn, leads to a weakness of adaptability to daily life conflicts and difficulties (see figure 2 above). This fragility or lack of adaptive abilities in turn reinforces the tyranny of the self over the body, suppressing needs, increasing the excessive focus on the body as an object and deepening the patient's inability to deal with the challenges of everyday life.

In patients with symptoms of loss of control over eating, this *embodied defense mechanism* leads to an aggressive violation of one's body limits that results in shame and guilt. These feelings are worse if being overweight or vomiting are added to the negative consequences of uncontrolled eating. Again, the objectification of the body seems an appealing solution to safeguard the already impaired self-esteem, completing the circle. For patients with restrictive symptoms, this objectification of their bodies leads them to an aggressive mistreatment of their bodies by disregarding the signals of basic needs. Through controlling their needs they get a sense of security and self-esteem that they cannot get from being creative and proactive in their relation with the world. Thus, what the self feels unable to face the body has to face, providing a more secure and attainable territory than the ominous reality of relationships and emotions.

Thus, as figure 2 illustrates, the aforementioned *embodied defense mechanism* reveals a *vulnerable self-organization* which is a key part of the vicious circle. The patients raise an embodied defense because of their weak self-organization, but just this embodied defense impedes them in strengthening their self-organization. As the onset of eating disorder symptoms often goes back to puberty and adolescence, the identity development process is unavoidably involved in, and limited, by this circle.

Considering that *emotional bodily experience patterns* go back to early attachment experiences, one may assume that for ED patients those experiences did not provide the opportunity to show comprehensible bodily expressions. Thus, the suppression and over-control of emotional bodily signals are induced by neglect, not receiving a sensitive response from one's caregivers, or being overprotected through obsessive and non-connected care. All of these experiences lead to a neglect of internal signals and an effort to control them by treating the body as an object. This early lack of adequate emotional mirroring by attachment figures or poor mentalization (Bateman & Fonagy, 2006; Fonagy, et al. 2002) could explain the difficulties of ED patients to read bodily signals of emotions and to integrate such experiences in a coherent and adaptive manner.

Discussion

As has been advanced in the above review, there have been several theoretical and empirical attempts to enlarge the concept of body image and embrace a new way of understanding the bodily phenomenon. However, there is still a lot of work to do to reach a consensus in the understanding of bodily experience in the context of psychopathology and mental health. A probable reason for this lack of agreement may be the great difficulty of operationalizing the bodily experience construct. As Merleau-Ponty (1945/1962) points out, the problem may lie in the complex relation of the observer with the object of

study as subject and object simultaneously. There also seems to be a kind of isomorphism between theory and practice in the field of EDs that leads to reproduce theoretically the same ‘objectification’ of the body that patients present through their symptoms. The development of concepts and therapeutic strategies that overestimate the body as object (of representation or misrepresentation) shows that it has been difficult, both for clinicians and for theorists, to escape from the eclipse presented by patients through their bodies as the main problem to solve. The present proposal aims at furthering the comprehension of the psychopathology of eating disorders as a disturbance of embodiment. It is grounded on the assumption that many mental disorders which at first sight appear as disturbances of thought, perception or behavior (as it has been proposed for eating disorder symptomatology), are in fact based on unnoticed background feelings that tacitly change the whole experiential field (Fuchs, 2013). In the case of EDs, the changing nature of emotions must be the focus of the psychotherapeutic work. Working only with cognitions, perceptions or behaviors will probably provide patients a sense of control and coping, but will not necessarily change their disturbed emotional bodily experiences. Thus, considering that there are no ‘intense’ cognitions as there are more or less ‘intense’ emotions (Fuchs, 2013, Downing, 2000), the sense of losing control at each arousal of emotions will be preserved.

Clinical observation shows that ED patients rigidly hold onto an active awareness of the body – the implicit or ‘resting’ position of the body is barely sustained. What requires a subject position of the body for displaying adaptive responses is lived from an object position of the body. Their bodies are no longer a means for experiencing their lives; they do not ‘feel at home’ within their bodies. Instead their bodies, as objects, give organization and structure to their daily lives. In this regard, a common experience in clinical work with ED patients is being frustrated, session by session, with the effort to

move them from this rigid focus on their bodies to a focus on their intersubjective space of experience where it seems that ‘nothing is happening.’ They show an unconscious but active resistance to live their bodies in a subject position that could lead to a closer and clearer relationship with their environment. It seems that staying in a subject position of their lived bodies is a hurtful and unbearable state. Thus, by means of embodied defense, ED patients disclaim their affective intentionality, leading to a sense of emotional detachment and to an object position because the intentional goal of one’s sensations is lacking. It should be considered that this emotional detachment includes the psychotherapeutic setting and the therapist. This is what stops many clinicians working with these kind of patients as they often seem inaccessible.

Therefore, one important therapeutic goal is to enable patients to look at and talk about their difficulties in coping with reality, allowing them to move away from rigidly focusing on their bodies as the most important problem, and helping them to understand and hear their bodily sensations and kinesthetic tendencies as the best signals for making decisions and managing their actions in real life. Of course, this shift of patients’ rigid objectification of their bodies to a subject position of their lived bodies, where bodily signals of emotions are the basic tool for understanding themselves and their relationship with the world, can create a high degree of anxiety. Thus, this shift must be carefully managed, grounding it in a very secure therapeutic alliance and setting. The latter could explain the high risk of relapse that ED symptoms show; removing the symptoms (which are indeed their embodied defense) without working therapeutically on the underlying weaknesses of self-organization puts the patient in a new, but unstable body-self-world position that is difficult to sustain. Thus, the comprehension of ED symptoms as a disturbance of emotional bodily experience highlights the need for new therapeutic tools. Some promising approaches that work with pre-reflective embodied experiences are

dance-movement therapies, art-therapy, music-therapy, mindfulness based interventions, etc. Thus, helping patients experiencing their lived bodies as subjects should leave them more prepared to work with their emotional bodily experiences enabling them to act in the world.

References

- Atwood, G.E. & Stolorow, R.D. (1984). *Structures of Subjectivity. Explorations in psychoanalytic phenomenology and contextualism*. London, New York: Routledge.
- Bateman, A., & Fonagy, P. (2006). *Psychotherapy for borderline personality disorder: mentalization-based treatment*. New York: Oxford University Press.
- Beato-Fernández, L., Rodríguez-Cano, T., García-Vilches, I., García-Vicente, A., Poblete-García, V., Soriano, A., Toro, J. (2009). Changes in regional cerebral blood flow alter body image exposure in eating disorders. *Psychiatry Research: Neuroimaging*, Vol. 171, (2), 129-137. doi: 10.1016/j.pscychresns.2008.01.001
- Behnke, Elizabeth A. (1997). Ghost Gestures: Phenomenological Investigations of Bodily Micromovements and their Intercorporeal Implications. *Human Studies*, Vol. 20, (2), 181-201.
- Brøsted Sørensen, J. (2005). The Alien-Hand Experiment. *Phenomenology and the Cognitive Sciences*, Vol. 4, (1), 73-90. doi: 10.1007/s11097-005-5854-4
- Bruch, H. (1971). *Eating disorders: Obesity, anorexia nervosa and the person within*. New York: Basic Books.
- Carr, D. (1986) *Time, narrative, and history*. Bloomington: University of Indiana Press.
- Cash, T.F., & Pruzinsky, T. Eds. (2002). *Body Image. A Handbook of Theory, Research & Clinical Practice*. New York, NY: Guilford Press.
- Cash, T.F., & Pruzinsky, T. Eds. (1990). *Body Images: Development, deviance, and change*. New York, US: Guilford Press.

- Cash, T. F., & Deagle, E.A. (1997). The Nature and Extent of Body-Image Disturbances in Anorexia Nervosa and Bulimia Nervosa: A Meta-Analysis. *International Journal of Eating Disorders*, Vol. 22 (2), 107-125.
- Damasio, A. R. (1994). *El Error de Descartes. La razón de las emociones*. Santiago, Chile: Editorial Andrés Bello.
- Delinsky, S.S. & Wilson, G.T. (2006). Mirror exposure for the treatment of body image disturbance. *International Journal of Eating Disorders*, Vol. 39 (2), 108-116.
- De Sousa, R. (2010). *Emotion*. Stanford Encyclopedia of Philosophy. Retrieved from <http://plato.stanford.edu/archives/spr2010/entries/emotion>
- Downing, G. (2000). Emotion theory reconsidered. In Wrathall, M., Malpas, J. Wrathall, M., Malpas, J. (Eds), *Heidegger, coping, and cognitive science: Essays in honor of Hubert L. Dreyfus 2*, (pp. 254-270). Cambridge/MA: MIT Press.
- Fairburn, C.G. (2008). *Cognitive Behavior Therapy and Eating Disorder*. New York: Guilford Press.
- Farrell, C., Shafran, R., & Lee, M. (2006). Empirically Evaluated Treatments for Body Image Disturbance: A Review. *European Eating Disorders Review*, Vol. 14 (5), 289-300. doi: 10.1002/erv.693
- Ferrer-García, M., & Gutiérrez-Maldonado, J. (2012). The use of virtual reality in the study, assessment, and treatment of body image in eating disorders and nonclinical samples: a review of the literature. *Body Image*, Vol. 9 (1), 1-11. doi:10.1016/j.bodyim.2011.10.001
- Fischer, S., & Cleveland, S.E. (1958). *Body Image and Personality*. Oxford: Van Nostrand.

- Fonagy, P., Gergerly, G., Jurist, E.L., and Target, M. (2002). *Affect regulation, mentalization and the development of the self*. New York: Other Press.
- Freud, S. (1925/1976). *Obras completas Sigmund Freud*, Vol. 19, J. Etcheverry (Trans.). Buenos Aires: Amorrortu editores.
- Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.
- Frijda, N. H. (1994). Varieties of affect: Emotions and episodes, moods, and sentiments. In P. Ekman & R. J. Davidson (Eds). *The nature of emotion: Fundamental questions* (pp. 59-67). New York: Oxford University Press.
- Fuchs, T. (2012a). The phenomenology of body memory. In S. Koch, T. Fuchs, M. Summa & C. Müller (Eds.) *Body Memory, Metaphor and Movement* (pp. 9-22). Amsterdam: John Benjamins.
- Fuchs, T. (2012b). The feeling of being alive. Organic foundations of self-awareness. In J. Fingerhut & S. Marienberg (Eds.), *Feelings of Being Alive* (pp. 149-166). Berlin, New York: De Gruyter.
- Fuchs, T. (2013). The phenomenology of affectivity. In K. W. M. Fulford, M. Davies, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini & T. Thornton (Eds.), *Oxford Handbook of the Philosophy of Psychiatry* (pp. 612-631). Oxford: Oxford University Press.
- Fuchs, T. & Koch, S. (2014). Embodied Affectivity: on moving and being moved. *Frontiers in Psychology*, Vol. 5, 1-12. doi: 10.3389/fpsyg.2014.00508

- Fuchs, T. & Schlimme, J. (2009). Embodiment and psychopathology: a phenomenological perspective. *Current Opinion in Psychiatry*, Vol. 22, (6), 570-575.
doi:10.1097/YCO.0b013e3283318e5c
- Gallagher, Shaun. (2001). Dimensions of embodiment: Body Image and Body schema in medical contexts. In S. K. Toombs (Eds.), *Handbook of phenomenology and medicine* (147-175). Dordrecht, the Netherlands: Kluwer Academic Publishers.
- Garner, D.M. & Garfinkel, P.E. (Eds.) (1997). *Handbook of Treatment for Eating Disorders*. New York: Guilford Press.
- Gibson, J. (1978). *The ecological approach to visual perception*. Boston: Houghton Mifflin.
- Harrison, K., & Hefner, V. (2006). Media Exposure, Current and Future Body Ideals and Disordered Eating Among Preadolescent Girls: A Longitudinal Panel Study. *Journal of Youth and Adolescence*, Vol. 35, no. 2: 153-163. doi: 10.1007/s10964-005-9008-3
- Herbert, B., & Pollatos, O. (2012). The Body in the Mind: On the Relationship between Interoception and Embodiment. *Topics in Cognitive Science*, Vol. 4, (4), 1-13. doi: 10.1111/j.1756-8765.2012.01189.x
- Hsu, L.K. & Sobkiewicz, T.A. (1991). Body Image Disturbance: Time to Abandon the Concept for Eating Disorders? *International Journal of Eating Disorders*, Vol. 10, (1), 15-30.
- James, William. (1890). *The principles of psychology, vol. 1*. New York: Dover.
- Jansen, A., Smeets, T., Martijn, C., & Nederkoorn. (2006). I see what you see: The lack of a self-serving body-image bias in eating disorders. *British Journal of Clinical Psychology*, Vol. 45 (1), 123-135.

- Jeppson, J.E., Richards, P.S., Hardman, R.K., & Mac Granley H. (2003). Binge and Purge Processes in Bulimia Nervosa: A Qualitative Investigation. *Eating Disorders*, Vol. 11, (2), 115-128. doi: 10.1080/10640260390199307
- Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination and reason*. Chicago: University of Chicago Press.
- Knauss, Ch., Paxton, S.J., & Alsaker, F. D. (2008). Body Dissatisfaction in Adolescent Boys and Girls: Objectified Body Consciousness, Internalization of the Media Body Ideal and Perceived Pressure from Media. *Sex Roles*, Vol. 59, 633-643. doi: 10.1007/s11199-008-9474-7
- Krueger, D.W. (2002). Psychodynamic Perspectives on Body Image. In T. Cash, & T. Pruzinsky (Eds), *Body Image, A Handbook of Theory, Research, and Clinical Practice*, (pp.30-37). New York, NY: Guilford Press.
- Lakoff, G., and Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Lichtenberg, J.D. (2001). Motivational Systems and Model Scenes with Special References to Bodily Experience. *Psychoanalytic Inquiry*, Vol. 21 (3), 430-447.
- Marco, J.H., Perpiñá, C., Botella, C. (2013). Tratamiento de la Imagen Corporal en los Trastornos Alimentarios: Diferencias en la respuesta al tratamiento según el diagnóstico. *Behavioral Psychology*, Vol. 21 (3), 491-509.
- Mask, L., & Blanchard, C.M. (2011). The effects of “thin ideal” media on women’s body image concerns and eating related intentions: The beneficial role of an autonomous regulation of eating behaviors. *Body Image*, Vol. 8 (4), 357-365. doi: 10.1016/j.bodyim.2011.06.003

- Merino Madrid, H., Pombo, G., & Godás Otero, A. (2001). Evaluación de las actitudes alimentarias y la satisfacción corporal en una muestra de adolescentes. *Psicothema*, Vol. 13 (4), 539-545.
- Merleau Ponty. (1945/1965). *Phenomenology of Perception*, translated by C. Smith. London: Routledge.
- Probst, M., Pieters, G. & Vanderlinden, J. (2008). Evaluation of Body Experience Questionnaires in Eating Disorders in Female Patients (AN/BN) and Nonclinical Participants. *International Journal of Eating Disorders*, Vol. 41 (7), 657-665. doi: 10.1002/eat.20531
- Ratcliffe, M. (2009). Belonging to the World through the Feeling Body. *Philosophy, Psychiatry, & Psychology*, Vol. 16 (2), 205-211
- Rodríguez-Cano, T., Beato-Fernández, L. & Belmonte, A. (2006). Body dissatisfaction as a predictor of self-reported suicide attempts in adolescents: A Spanish community prospective study. *Journal of Adolescent Health*, Vol. 38 (6), 684-688. doi: 10.1016/j.jadohealth.2005.08.003
- Rosen, J. (1997). Cognitive-Behavioral Body Image Therapy. In D. Garner & P. Garfinkel (Eds.), *Handbook of Treatment for Eating Disorders*, (pp.188-204). NY: Guilford Press.
- Roth, D., & Armstrong, J. (1993). Feelings of Fatness Questionnaire: A Measure of the Cross-Situational Variability of Body Experience. *International Journal of Eating Disorders*, Vol. 14 (3), 349-358.
- Sands, R. (2000). Reconceptualization of Body Image and Drive for thinness. *International Journal of Eating Disorders*, Vol. 28 (4), 397-407.

- Sartre, J. P. (1943/1966). *Being and Nothingness*. Trans. Hazel E. Barnes. New York: Washington Square.
- Schechtman, M. (1996). *The constitution of selves*. Cornell University Press.
- Schilder, P. (1950/2000). *The Image and Appearance of the human body*. Abingdon, OX (Oxon): Routledge.
- Scott Mizes, J., Heffner, M., Madison, J.K. & Varnado-Sullivan, P. (2004). The validity of subjective measures of body image disturbance. *Eating Behaviors*, Vol. 5 (1), 55-66. doi: 10.1016/S1471-0153(03)00056-4
- Sinton, M., & Birch, L. (2006). Individual and Sociocultural Influences on Pre-Adolescent Girls' Appearance Schemas and Body Dissatisfaction. *Journal of Youth and Adolescence*, Vol. 35 (2), 165-175. doi: 10.1007/s10964-005-9007-4
- Skårderud, F. (2007a). Shame and Pride in Anorexia Nervosa: A Qualitative Descriptive Study. *European Eating Disorders Review*, Vol 15, 81-97. doi: 10.1002/erv.774
- Skårderud, F. (2007b). Eating One's Words, Part I: 'Concretised Metaphors' and Reflective Function in Anorexia Nervosa - An Interview Study. *European Eating Disorders Review*, Vol. 15: 163-174. doi: 10.1002/erv.777
- Skårderud, Finn. (2007c). Eating One's Words, Part II: The Embodied Mind and Reflective Function in Anorexia Nervosa-Theory. *European Eating Disorders Review*, Vol.15 (4), 243-252. doi: 10.1002/erv.778.
- Skrzypek, S., Wehmeier, P.M., & Remschmidt, H. (2001). Body image assessment using body size estimation in recent studies on anorexia nervosa. A brief review. *European Child and Adolescent Psychiatry*, Vol. 10 (4), 215-221.

- Slade, P.D. (1994). What is body image? *Behaviour Research and Therapy*, Vol.32 (5), 497-502.
- Stanghellini, G., Castellini, G., Brogna, P., Fravelli, C. & Ricca, V. (2012). Identity and Eating Disorders (IDEA): A Questionnaire Evaluating Identity and Embodiment in Eating Disorder Patients. *Psychopathology* Vol.45, 147-158. doi: 10.1159/000330258
- Stice, E., & Whitenton, K. (2002). Risk Factors for Body Dissatisfaction in Adolescent Girls: A longitudinal Investigation. *Developmental Psychology*, Vol. 38 (5), 669-678. . doi: 10.1002/eat.20045
- Stice, Eric & Bearman, S.K. (2001). Body-Image and Eating Disturbances Prospectively Predict Increases in Depressive Symptoms in Adolescent Girls: A Growth Curve Analysis. *Developmental Psychology* Vol. 37 (5), 597-607.
- Strigo, I., Matthews, S., Simmons, A., Oberndorfer, T., Klabunde, M., Reinhardt, L., & Kaye, W. (2013). Altered Insula Activation during Pain Anticipation in Individuals Recovered from Anorexia Nervosa: Evidence of Interoceptive Dysregulation. *International Journal of Eating Disorders* Vol. 46 (1), 23-33. doi: 10.1002/eat.22045
- Thompson, J. K.; Heinberg, L., J., Altabe & M. Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC, US: American Psychological Association.
- Thörnberg, U., Nordholm, L., Wallström, A. & Svantesson, U. (2005). Quality of life assessment for patients with eating disorders. *Eating Weight Disorders*, Vol. 10, 56-60.
- Trentowska, M., Bender, C., & Tuschen-Caffier, B. (2013). Mirror exposure in women with bulimic symptoms: How do thoughts and emotions change in body image treatment? *Behaviour research and therapy*, Vol.51 (1), 1-6.

Túry, F., Güleç, H., & Kohls, E. (2010). Assessment methods for eating disorders and body image disorders. *Journal of Psychosomatic Research*, Vol. 69 (6), 601-611. doi: 10.1016/j.psychores.2009.05.012

Zahavi, D. (2012). A Distinction in Need of Refinement. In Fuchs, Sattel, Henningsen (Eds.), *The Embodied Self. Dimensions, Coherence and Disorders*, (pp. 3-12). Stuttgart: Schattauer.

PART II. DEVELOPMENT AND VALIDATION OF THE EMOTIONAL BODILY EXPERIENCE QUESTIONNAIRE.

ARTICLE: Emotional Bodily Experience Questionnaire: Development and Psychometric Properties, *SUBMITTED*.

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Properties.

Abstract

This paper describes the development, validation, and psychometric properties of Emotional Bodily Experience Questionnaire (EBEQ). A first study was aimed at achieving content validity and consisted of an iterative process for the definition and operationalization of the construct. A second study tested the preliminary theoretical structure of EBEQ in a sample of 402 non-clinical adult population to obtain a final item selection and a final factorial structure with 27 items and 6 scales. A third study assessed internal reliability, and construct validity (convergent, divergent, and discriminant) of the final structure of the questionnaire. Results showed good convergent validity with the Scale of Body Connection (SBC), meaningful associations with related mental health measurements, and ability to distinguish between known groups. This new assessment tool seems a promising first step in contributing to the comprehension of the emotional bodily experience and its adaptive and maladaptive forms.

Dirección, postal code, fax, email.

Key words: Emotional Bodily Experience, Attentional focus on the body, Attention to Environment, Affect Intensity.

The study of bodily experience associated to psychopathology has been increasing during the last decade, especially through the empirical research on interoception (Cameron, 2001, 2002; Furman, 2013; Harshaw, 2015; Hart et al., 2013; B. Herbert, & Pollatos, O. , 2012; B. M. Herbert, Herbert, C. and Pollatos, O., 2011; O. Pollatos, Dietel, A., Herbert, B. M., Wankner, S., Wachsmuth, C., Henningsen, P., Sack, M., 2011; Schaefer et al., 2012; Vaccarino, 2009). The relevance of looking for new assessment tools by approaching emotional bodily experience is based on the assumption that psychopathology always represents some disturbances on the experience of the body in different ways (Gallagher, 2005; Johnson, 2013; Varela et al., 1993) but notably at the bodily resonance of emotions (T. Fuchs, 2013; T. Fuchs & Koch, 2014; T. S. Fuchs, J. , 2009; M. I. Gaete & Fuchs, in press), and the interoceptive awareness of them (Cameron, 2002; Harshaw, 2015).

Somatic expressions of depression have been largely described, such as appetite and weight changes, sleep disturbances, sexual dysfunction, changes in psychomotor activity, decreased energy or fatigue, among others, being considered also as its early symptoms expression (American Psychiatric Association, 2013; Beck, 1967; Henningsen, Zimmermann, & Sattel, 2003; Vaccarino, 2009). Anxiety and panic disorders have been first and often studied because of the prominent presence of somatic symptoms overcharging primary care services (Olfson & Gameroff, 2007). Likewise, somatosensory amplification, which involves in some way a heightened attentional focus on the body, anxious vigilance of bodily signals and self-focusing (as could be observed on hypochondriasis) represents an important topic of research on anxiety and somatic complains (Barsky & Wyshak, 1990; Barsky, Wyshak, & Klerman, 1990; Cameron, 2002; Mailloux, 2002; Schaefer et al., 2012). Even though the heightened attentional focus on the body could be considered part of the described

symptoms for eating disorders (EDs) such as body image disturbance, concerns about eating, about body weight and shape; however, its study has been restricted to attentional biases for body image and food ‘issues’ or at best as a way of self-focus (Hollitt, Kemps, Tiggemann, Smeets, & Mills, 2010; Jansen, Nederkoorn, & Mulkens, 2005; Smith & Rieger, 2006; Zucker & Harshaw, 2012; Zucker et al., 2015), but not as an attentional focus on the body beyond symptomatic expressions. In regard to interoceptive awareness on EDs, the most research has been done by means of the *interoceptive awareness* scale of the self-reported questionnaire Eating Disorders Inventory (EDI) (Garner, Olmstead, & Polivy, 1983) which mainly measures emotional awareness, close to alexithymia construct, along with questions about associations between negative emotions and EDs symptoms manifestations, exhibiting by this means strong evidence about low interoceptive awareness and EDs. Likewise, in recent years, laboratory studies testing interoceptive sensitivity showed increasing and promising evidence about interoceptive deficits associated to EDs (Eshkevvari, Rieger, Musiat, & Treasure, 2014; Harshaw, 2015; B. M. Herbert, Blechert, Hautzinger, Matthias, & Herbert, 2013; B. M. Herbert et al., 2012; B. M. Herbert & Pollatos, 2014; Klabunde, Acheson, Boutelle, Matthews, & Kaye, 2013; O. Pollatos et al., 2008; Zucker & Harshaw, 2012).

During the last decades, new self-reported questionnaires aimed to assess aspects of embodiment, bodily experience, body connection, and body awareness have arisen (Anderson, 2006; Borkenhagen, Klapp, Brähler, & Schoeneich, 2008; Broccoli, 2008; Brown et al., 1990; Mehling et al., 2009; Mehling et al., 2012; Miller, Murphy, & Buss, 1981; Price & Thompson, 2007; Probst et al., 2008; Schneider, Mendler, Heuft, & Burgmer, 2008; Stanghellini et al., 2012) giving a new impetus to this line of research. However, there is no consensus yet about bodily awareness definition, about when and

how it is adaptive or maladaptive, and about the role of attentional focus on the body as an inherent aspect of bodily awareness (Harshaw, 2015; Mehling et al., 2009; Zucker & Harshaw, 2012). In this regard, Harshaw (Harshaw, 2015) highlights that bodily awareness is close to a general conscious or directedness of attention to the body. Thus, it could be thought that an individual with low interoceptive awareness must rarely focus the attention to its own somatic stimuli, but it is not clear that it performs in this way; in fact, there is some evidence that a higher attentional focus on the body could lead to an impairment on interoceptive accuracy (Bogaerts et al., 2008; Bogaerts et al., 2010; Fredrickson & Roberts, 1997). Further research is needed to fill in the gaps in this promising line of research.

Considering bodily awareness as a combination of interoceptive sensitivity, attention to body, emotive and affective aspects, studies focusing on attentional dimension of bodily awareness in combination with affective and emotive dimensions by self-reported measures has been scarce.

In this regard, the present study aims to be a contribution while considering emotional bodily experience as a dynamic and multi-dimensional phenomenon in which attentional focus on the body plays an important role that has been not operationalized yet by a self-reported questionnaire.

The complete research project received ethical approval from the Ethical Committee for Research on Humans Beings from the Medicine Faculty of the University of Chile.

Study 1: Concept and Item Development

The present study is based on the *emotional bodily experience* (EBE) construct previously defined (M. I. Gaete & Fuchs, in press) as a “*multi-dimensional and dynamic phenomenon which includes affective and emotive aspects of bodily resonance along with implicit, explicit, narrative, and functional dimensions, and which conveys coherence and internal consistence to the self*” (p. 13) (M. I. Gaete & Fuchs, in press).

The dynamic aspect of EBE is expressed by the changing nature of emotions, with bodily resonance conveying by itself the triggering stimulus for shifting from an *implicit* emotional bodily experience (or ‘resting’ position of the body) to an *explicit* emotional bodily experience (or ‘active’ position of the body). It is assumed that bodily experience is always an emotive-affective phenomenon which means that through the affective stimulus of the environment you are both affected by, or ‘touched’ (affective aspect), and moved to act in response (emotive aspect), and that both affect and emotive aspects occur through its bodily resonance wherein interoceptive awareness and attention to the body takes place (T. Fuchs, 2013; T. Fuchs & Koch, 2014; M. I. Gaete & Fuchs, in press). Only with this basic resource of bodily resonance of emotions or ‘something is happening here’ individuals are able to propose a *narrative* (narrative dimension) and to act accordingly (functional dimension).

The dynamism of the implicit and explicit dimensions will be taken into account for the operationalization of the construct and the development of the questionnaire as they express the consciousness or directedness of the conscious over the body. It is assumed that at different bodily states and contexts the experience of the body changes from implicit to explicit positions or vice-versa.

With this theoretical framework in mind, the aim was to carry this theoretical conceptualization to a ‘working definition’ capable of being developed into a self-reported questionnaire. The main challenge was to get a simple and comprehensible way of accessing this phenomenon.

The whole process comprised the following three phases: 1) Development of a preliminary theoretical structure of the questionnaire; 2) Assessment and refinement of the preliminary theoretical structure of the questionnaire (expert judges and pilot application); and 3) Final piloting of the refined theoretical structure of the questionnaire. An iterative decision-making process was done through being able to reproduce the judges’ assessments and pilot applications; being able to go back at any moment to the theory or to previous steps, re-defining categories, re-naming scales or grouping items differently until it obtained a satisfactory version of the questionnaire (figure 1).

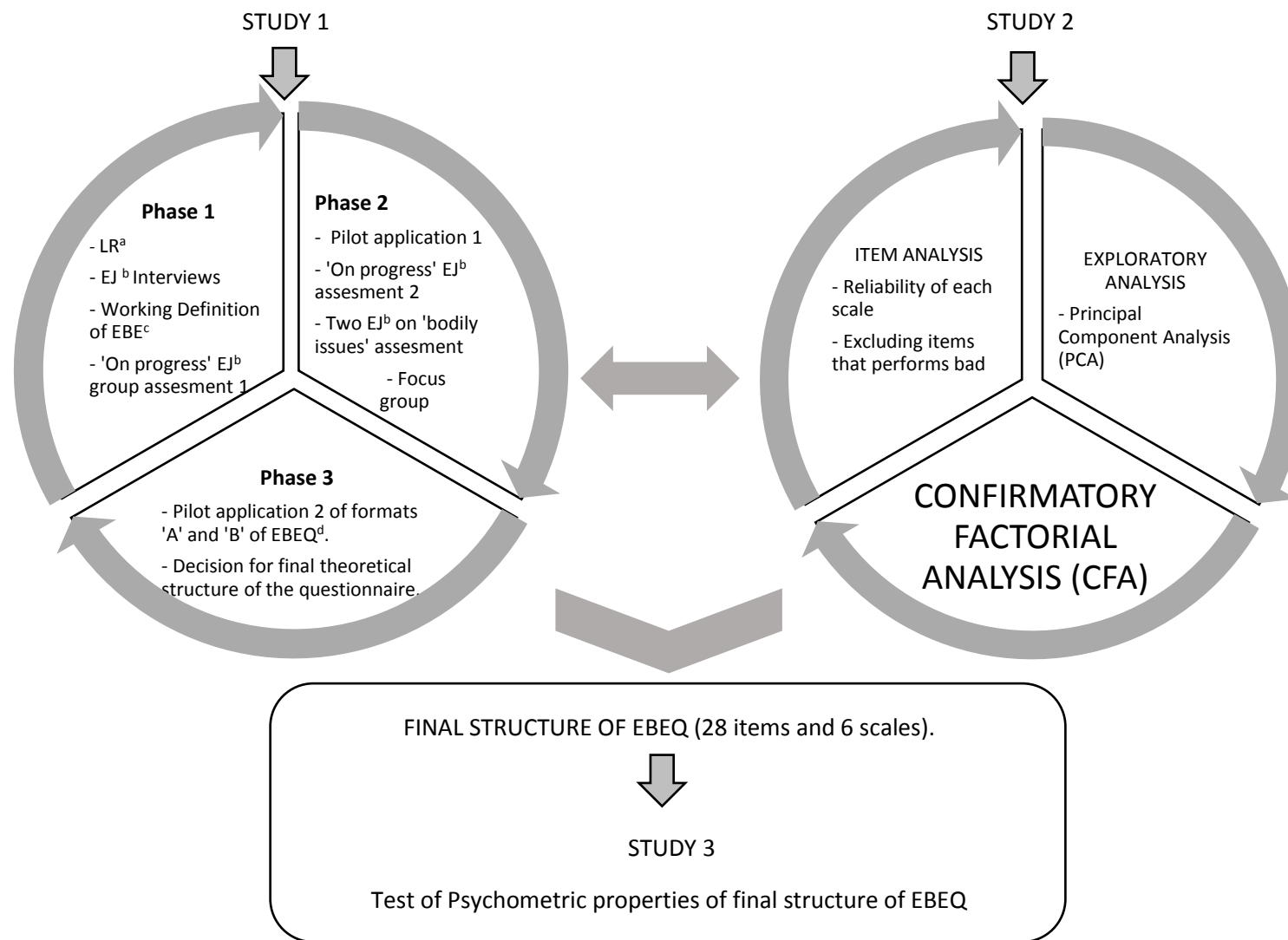


Figure 1. Iterative Decision Making Process. Shows the circular process between Study 1 and Study 2 that leads to a final Structure of EBEQ which psychometric properties is tested on Study 3 on its.

NOTES: ^a LR, Literature Review; ^b EJ, Expert Judge; ^c EBE, Emotional Bodily Experience; ^d EBEQ Emotional Bodily Experience Questionnaire

Phase 1: Development of a preliminary theoretical structure of the questionnaire

Step 1. Literature Review (LR) and Expert Judges Interview. As it was introduced above, an exhaustive LR about conceptualizations, assessment tools, and empirical evidence on embodiment, body image, body dissatisfaction, body image disturbance, body experience, body awareness, body connection, and interoception was done (Anderson, 2006; Bekker, Croon, van Balkom, & Vermeë, 2008; Broccoli, 2008; Brown et al., 1990; Cioffi, 1991b; De Berardis et al., 2007; Fredrickson & Roberts, 1997; T. Fuchs, 2013; T. Fuchs & Koch, 2014; Gallagher, 2005; Mehling et al., 2009; Mehling et al., 2012; Merleau-Ponty & Smith, 1996; Price & Thompson, 2007; Probst et al., 2008; Stanghellini et al., 2012).

Two expert judges, both of them clinicians with more than fifteen years of experience in the field of eating disorders and members of the Chilean Society for the Study and Treatment of Eating Disorders (SETA), and with considerable experience as researchers in the same field, were contacted personally by phone and each of them were interviewed separately. By means of a set of open questions, they were asked to talk about their understanding of EBE and its adaptive and maladaptive expressions. The interviews were recorded, transcribed, and further analyzed in order to shape a conceptual framework and working definition.

Step 2. Conceptual framework, dimensions, scales and items development.

Following Haynes, Richard, & Kubany recommendations for content validation (Haynes, Richard, & Kubany, 1995), and assuming the unavoidable loss of information from theoretical to empirical levels, the following working definition of emotional bodily experience (EBE) was built upon the already mentioned theoretical definition,

the literature review, expert judge interviews, and the clinical experience of the researcher:

Multidimensional, dynamic and subjective phenomenon that involves emotional aspects of sensorial and relational bodily experiences, along with variations on body-self connectedness; which gives coherence and consistence to the Self.

By this means, a first pool of 103 items aimed to assess the subjective emotional body experience through different sensorial and relational contexts was firstly proposed. *Sensorial* and *relational* domains represent the dynamism of different states and contexts that could lead to feel *different emotions* and *more or less connected with the body*. So this first version of the EBEQ comprises a list of 35 emotions, and a visual representation on an 8- point Likert's scale of psychological distance or proximity between Body and Self (Broccoli, 2008). Individuals were asked to choose the emotion and the level of body-self connectedness (perceived distance between Body and Self) that better represents how they live their bodies cross-situationally. The use of a visual representation was appealing because it breaks the language barrier by a simple way of representing body-self connection with two circles located on a range from completely separated to completely overlapping.

Sensorial domain is defined as different bodily sensations that persons experience during daily life that could be felt as comfortable, uncomfortable, annoying, etc., and that could lead to different levels of body-self connectedness. Otherwise, the *relational domain* is described as the subjective bodily experience through different relational contexts that triggers different emotions and levels of body-self connectedness.

The structure of the questionnaire was shaped as an adaption of a ‘grid format’ (Reisenzein & Hofmann, 1990) which is thought to be a better form of embracing several dimensions cross-situationally.

Step 3. First ‘On progress’ Expert Judge Assessment. Consisted of a group of three expert judges: two female clinicians, and members of SETA, with more than fifteen years of clinical experience with eating disorders and one male psychologist and researcher, with vast experience on affective neuroscience of emotional and eating regulation. Both the working definition and the conceptual structure of EBE were presented to them along with the preliminary version of the questionnaire. Each judge’s assessment was done by means of semi-structured questionnaires comprising ‘yes or no’ questions, and asking for the relevance of items to scales, and of scales to the conceptual structure (ranking from 0-5). By this means, the conceptual and formal structure of the EBEQ was approved by the verdict of the judges (ranging between 2/3 – 3/3, of ‘yes’ answers through the complete evaluation form). Their feedback leads to grouping items in different categories (preliminary scales), excluding some items, phrasing others differently, and including some new items. Then, a new version with 112 items and 16 scales was developed.

Phase 2. Assessment and refinement of the preliminary theoretical structure of the questionnaire

Step 1. First pilot application. The first preliminary version of the questionnaire with 112 items was applied to a first group consisting of 8 participants aged from 19 to 27 years old, mean age = 19.5 (SD=3.07) (18-27 years old) (6 females, and 2 males) from the general population, and a second group of four females from the clinical population. Two of the clinical population were diagnosed with an Anorexia Nervosa purging subtype (28 and 23 years old), one with a Binge Eating Disorder

diagnosis (27 years old), and one with an ulcerative colitis diagnosis (26 years old). After completing the questionnaire a cognitive interview was applied. A responding time of 1 hour on average was observed (45-75 minutes). Problems were reported with understanding the instructions and answering the visual scale of body-self connectedness (Broccoli, 2008). Participants referred to not understanding the idea of “distance” or “proximity” with their bodies because it supposed some form of dissociation that was hard to imagine. Then, a step back to theory was done re-examining the EBE construct, especially in regards of the *implicit* and *explicit dimensions of the lived body* (M. I. Gaete & Fuchs, in press; Merleau-Ponty & Smith, 1996), leading to a different way of approaching this dimension through the focus of *attention on the body* and *on the environment*. It is supposed that, in certain conditions, the more attention that is focused on the body the more *explicit* the bodily experience is and the more attention is focused on the environment the more *implicit* bodily experience is.

Therefore, attentional focus (to the body or to the environment) is considered here a general and stable attitude, as well as a dynamic and changing attitude through different states and contexts. It is assumed that individuals have a personal threshold for shifting attention on their bodies and on the environment which gives coherence to the self by its adaptive responses to changes (M. I. Gaete & Fuchs, in press; Zucker & Harshaw, 2012). Further, a stable attentional attitude comprises both the usual overall level of attention to body and to environment, that should differentiates between groups of individuals (some more prone to usually focussing attention on the body and others prone to usually focussing attention on the environment). Otherwise, it is considered that changes in attention to body participates in emotional regulation (M. I. Gaete &

Fuchs, in press; Harshaw, 2015; Zucker & Harshaw, 2012) and on adaptive responses to daily life requirements.

Thus, EBE requires to be dynamically ‘here within your feeling body’, as well as ‘to be there’ responding to the requirements of the environment. Further, asking about ‘attentional focus’ seem easier to understand for anybody because it is a conscious, cognitive, reflective and active psychological process.

Step 2. Second ‘On Progress’ Expert Judge Assessment. Assessment and rating of a set of 112 preliminary items and 16 scales was presented to the ‘on progress’ group of three expert judges. The aim was to assess the relevance of items and scales along with wording and formatting issues. Thus 4 items were excluded because they did not show enough consensus on their relevance to scales. Further, the feed-back obtained led to simplify the way of asking about emotional experiences replacing the huge list of short lasting and long lasting emotions by the broadly known six ‘basic emotions’ (P. Ekman, 1999), grouped into a new scale of *basic emotions*. Likewise, *affect intensity* (AI) was included as a third dimension of EBEQ. It is not only the attentional focus on the body that matters but also the motivational and emotional/affective contents of it as proposed by the core definition of *emotional bodily experience* (M. I. Gaete & Fuchs, in press), and highlights Fuchs (T. Fuchs, 2013), Cioffi (Cioffi, 1991a, 1991b), and Cameron (Cameron, 2001). In agreement with Cioffi (Cioffi, 1991b), it is assumed that attention to body and affect interact in producing somatic meaning. So asking about the affect intensity of bodily experiences seems also a relevant question to ask. *Affect Intensity Dimension* (AI) also seems easier to answer cross-situationally than through a list of different emotions to choose from. AI consisted of an 11-point Likert’s scale (from -5 to +5 through zero) representing negative affect intensity, positive affect intensity, and neutral affect.

This way, a three-dimensional new simplified version of the questionnaire was shaped to include *attention to body*, *attention to environment*, and *affect intensity dimensions*, with 108 items and 13 scales.

Step 3. Expert Judges on ‘Bodily Issues’ Assessment, and Focus Group.

Two expert judges on ‘bodily issues’ in a broad sense were personally contacted by the researcher. One expert has more than five years of clinical experience with patients with Chronic Pain at the Chronic Pain Unit from the Clinical Hospital of the University of Chile. The second one is a dance teacher, with a specialization in Cognitive-Bodily Integration Method (MICC), (Cordero, 1999), Dance-Movement Therapy, and experience in psychoeducational bodily processes with individuals from the general population. The whole content and structure of the questionnaire was reviewed again by means of a semi-structured interview. Items of pleasant/unpleasant states, and satisfied/unsatisfied bodily needs were assessed by resolving conflicts about relevance. Some items could be part of satisfied needs *and* pleasant sensations, or unsatisfied needs *and* unpleasant sensations at the same time. At this step a focus group aimed at assessing the structure of the questionnaire was conducted with 12 individuals from a post-graduate group of students, 9 females and 3 males, with a mean age of 32 (26-45 years old). The feedback obtained allowed a further refinement of items and scales. Thus, considering the feed-back of the first pilot application about complexity of questions and time of responding, both expert judges and participants of the focus group were asked about a simplified version with modifications in the wording of instructions, and to choose only the most relevant items by a rating scale. Thus, by this means a preliminary version of 62 items was shaped with two different formats (‘A’ and ‘B’) for a final pilot testing to choose the simplest and clearest way of phrasing the instructions.

Phase 3. Final piloting of the theoretical structure of the questionnaire

Step 1. Second pilot application. A group of six adults aged from 19 to 45 years old, mean age of 24.5, (4 females, 2 males) from the general population participated. Two versions of 62 items were applied for a final test of the comprehensibility of items, instructions, and response time. Participants were divided into two groups and were asked to answer two forms of the preliminary version: one with longer instructions (Form A) and the other with shorter instructions (Form B). The answer time was measured resulting in a mean time of 47.5 (45-50 minutes) for Form A, and 37.5 minutes (30-45 min.) for Form B. Then, a semi-structured cognitive interview was conducted in order to learn the opinion of participants about: The number of ideas that each item comprises; how did they understand the instructions and items?; what did they think about answering them?; yes or no questions about clarity of items; and differences between different items and scales.

The whole process allowed for a final combined version of both forms that represents the clearest and shortest way of phrasing items and instructions with 62 items and 12 scales. This resulting theoretical structure was built upon the following new EBE operationalization: *Emotional bodily experience is assessed by self-reported levels of attention to body (AB), levels of attention to environment (AE), and affect intensity (AI) of bodily experience through different emotional states, bodily states and relational contexts.* It comprised both a general attitudinal aspect, and a dynamic attitudinal aspect of EBE. General attitudinal aspect of EBEQ comprises two initial questions, one asking: *Usually you pay more attention to: a) your body, b) the environment, or c) the same to both.* The second question asked about: *Usual levels of attention to body (UAB) and to environment (UAE)* (6 point Likert's scale ranging from 'not at all' to 'too much' 0-5). The cross-situational structure of the EBEQ (dynamic aspect) comprises items asking

through different bodily sensations and contexts about: How much attention do you pay to your body/to the environment? (6 point Likert's scale ranging from 'not at all' to 'too much', 0-5), and How it affects you, positively, negatively or neutral? (-5 to 5, 11- Likert point- type scale ranging from 'intensively negative affect' to 'intensively positive affect' through zero which corresponds to 'neutral affect'). Note that the 'too much' option was included with the intention of getting answers that are felt by persons beyond their own limits. The different bodily sensations and relational contexts are organized into the following domains and scales:

- *Basic emotions*. It groups six basic emotions. (How much attention do you pay to your body/to the environment when you feel...? Affect intensity was excluded here because it is redundant at emotional states).
- *Sensorial*. It groups the scales of *unsatisfied needs*, *satisfied needs*, *pleasant* and *unpleasant sensations*.
- *Relational*. It groups the scales of *private body*, *public body*, and *body-environment conflicts*. Likewise, contact with other items are part of this relational domain, grouping the scales of *physical contact with a loved one*, *physical contact with a stranger* and *aggressive contact*.
- *Erotic and Sexual*. This scale was included by grouping five items which no consensus was obtained about their relevance to the scales of pleasant, satisfied, unsatisfied needs, and public body or to a separate erotic and sexual scale. It was decided to preliminary preserve this scale for making decisions based on further factorial and confirmatory analysis.

Discussion Study 1

The development and content validity of an initial, large pool of items of a theoretical structure of the EBEQ resulted from the first phase of this first study. Further, by means of the described iterative process, a short and simple preliminary version was shaped. The original grid format underwent changes, but its main structure was preserved during the process. Changes on the second phase were about formatting, and wording of instructions and items, along with adding new scales as the case of *basic emotions*, and changing the original bi-dimensional structure of the questionnaire. Likewise, a major change was to look for another form to operationalize the multidimensional aspect of EBE construct especially in regards of the *implicit* and *explicit* dimensions, and *affective-emotive* aspect. Thus, the list of emotions for cross-situational assessment was replaced by affect intensity, and body-self connectedness visual scale replaced by Attention to Body (explicit dimension) and to Environment (implicit dimension). By this means, the final three-dimensional structure of the questionnaire was shaped with the dimensions of: Attention to Body (AB), Attention to Environment (AE), and Affect Intensity (AI).

Study 2: Field Test of factorial structure

The second study was aimed at testing the psychometric properties, and to identify a final set of scales and items of the preliminary version (62 items and 12 scales) of EBEQ. The item-test analysis is reported by means of reliability analysis of theoretical scales, followed by exploratory analysis by principal component analysis (PCA). Further, three different models of factorial structure of the questionnaire were tested with confirmatory factorial analysis (CFA) selecting a final model of 6 factors well suited to the data.

Method

Participants. Young adults were recruited mainly from local Chilean Universities from Santiago and Valparaíso. They were invited to participate by email and were mostly from Psychology and Medicine faculties. The sample ($n=402$), consisted of 250 females (62.2%) and 152 males (37.8%), with a mean age of 23.9 ($SD=7.77$) years old. The average years of formal education was 16.4 ($SD=3.13$).

Procedures. The preliminary version of 62 items was tested for identifying a set of scales and items that would provide a good fit with the data. An iterative process for decision making was also applied to this study.

Data was collected between September 2013 and August 2014, through an internet survey (Surveygizmo, 2010) sent to participants by e-mail. There was a raffle for each 50 participants completing the survey: the prize was a gift card for books. Once participants logged onto the website, the first page was a consent form; only if they marked off agreed on this form were they able to answer the survey.

Data Analysis. It was comprised of different steps showing the items eliminated due to poor performance. This led to the final decisions about the scales that would provide a good model. The first two items were about 1) usually, you pay more attention to your body, the environment, or both at the same level (categorical variable), and about 2) UAB and UAE (Likert's scales) were excluded for being considered part of the bodily experience as a general attitude, and not part of any of the theoretically proposed scales. Thus, analysis was run from item 3 to item 62 which comprises the different scales as different states and contexts of EBE.

Item-Test Analysis. A first step was to analyze the reliability of the theoretical scales in order to identify those items that improve the reliability of each scale if they were deleted, and those having low item-total correlations ($<.5$). All the items identified for deletion were contrasted then with the subsequent Exploratory Analysis for making decisions.

Exploratory Analysis. It was conducted by a Principal Component Analysis (PCA) to explore data and extract emerging components with a Varimax orthogonal rotation method that keeps them unrelated between each other and Kaiser normalization. Only components with eigenvalues of 1 or higher were retained (Kaiser, 1960). The Catell's scree test was also considered in order to decide the number of components to be retained. Likewise, the factor loading of items ($>.5$) within each component for splitting decisions was examined. Considering the multi-dimensional structure of the questionnaire, three exploratory analysis were conducted: one for *attention to body*, another for *attention to environment*, and a third for *affect intensity* dimensions.

At the first and second steps, decisions about items were taken following both the reliability analysis and exploratory analysis. Items were deleted if they improved the

reliability of a scale while deleting, and if they did not have enough factor loading at the factorial analysis.

Confirmatory Factorial Analysis (CFA). It was tested for the goodness of fit with data of models proposed based on the previous steps. Thus, by this means a first model with good fit to data was chosen and tested then by a new reliability analysis, which in turn gives information for new refinement of items and scales for finally obtaining a model that shows a satisfactory goodness of fit and good reliability. To this aim, it was used RStudio 3.1.2 (R Core Team, 2014) , and decisions about the final model were guided by the comparative fit index (CFI), the Tucker Lewis Index (TLI) and the root mean square error of approximation (RMSEA), as well as modification indices. Considering convention, it was required at least two of the following fit indices to fall in the desired range: CFI > .90; TLI > .95; RMSEA < .05; and standard root mean square residual (SRMR) < .08.

Results

Item-test Analysis. This first step of reliability analysis of the theoretical structure (see table 1) shows good reliability scores for the scales of the attention to body dimension, ranging from a Cronbach's Alpha of .74 for *unpleasant sensations* and of .87 for *physical contact with a loved one*. The scales of attention to environment showed reliability scores ranging from .62 for *basic emotions* to .83 for *physical contact with a loved one*. Finally, the scales of affect intensity showed the poorest reliability scores ranging from .58 for *private body* to .82 for *aggressive contact*.

A total of 9 items improving the reliability of the scales while deleting were identified at this step and excluded of further analysis. Between them, 3 were part of the 'sexual items' (see table 1) which support the idea of a separate scale grouping them. Likewise,

four of the five sexual items grouped into a single *sexual scale*, showed good reliability and good item-total correlations grouped.

Table N° 1:

Theoretical Structure versus Factorial Structure, Reliability and Item Analysis for scales of the three dimensions: Attention to Body (AB), Attention to Environment (AE), Affect Intensity (AI).

Theoretical Structure				Factorial Structure			
Scales	N° of items 60 ^a	α	Items for being deleted	Components	N° of items 41 ^a	α	Items for being deleted
Basic Emotions	6			Basic Emotions	6		
AB		.78		AB		.78	
AE		.67					
Unsatisfied Needs	7			Unsatisfied Needs	3		
AB		.78		AB		.67	
AE		.75		AE		.53	15.3
AI		.65	13.1*, 19.1	AI		.64	
Satisfied Needs	7			Satisfied Needs	5		
AB		.83	14.2*	AB		.82	
AE		.81	14.3*	AE		.84	
AI		.73		AI		.66	
Pleasant Sensations	7			Pleasant Sensations	4		
AB		.80	25.2	AB		.81	
AE		.79		AE		.76	
AI		.62	25.1	AI		.65	
Unpleasant Sensations	6			Unpleasant Sensations	3		
AB		.74		AB		.66	
AE		.68	26.3	AE		.53	
AI		.68	23.1	AI		.53	
Public Body	9			Public Body	5		
AB		.84		AB		.81	
AE		.79		AE		.76	
AI		.67	46.1*	AI		.63	41.1
Private Body	6			Private Body	4		
AB		.75		AB		.74	
AE		.79		AE		.65	44.3
AI		.58		AI		.58	
Conflict	6			Conflict	4		
AB		.75		AB		.74	
AE		.70		AE		.69	
AI		.71	51.1, 52.1*	AI		.82	
Contact with a loved one	2						
AB		.87					
AE		.83					
AI		.81					

Table N° 1:

Theoretical Structure versus Factorial Structure, Reliability and Item Analysis for scales of the three dimensions: Attention to Body (AB), Attention to Environment (AE), Affect Intensity (AI).

Theoretical Structure				Factorial Structure			
Scales	N° of items 60 ^a	α	Items for being deleted	Components	N° of items 41 ^a	α	Items for being deleted
Contact with a stranger	2			Contact with a stranger	2		
AB		.80		AB		.79	
AE		.82		AE		.82	
AI		.71		AI		.71	
Aggressive Contact	2						
AB		.79					
AE		.74					
AI		.82					
Erotic & Sexual	5			Erotic & Sexual	5		
AB		.85		AB		.85	13.2*
AE		.82		AE		.82	
AI		.70		AI		.70	13.1*

*Note. * sexual items, ^a Total of items are not considering the two initial questions about Usual attentional focus on the body and on the environment*

Exploratory Analysis. In a first step a principal component analysis was applied including the items of basic emotions. Attention to body (AB) grouped the six basic emotions into a component but it did not find coincidence at the attention to environment dimension (AE). Thus, taking into account the theoretical and clinical importance for emotional bodily experience, basic emotions items were retained at the AB dimension grouped into a scale but not at the AE which showed also low reliability scores at the previous step. Then, a second step of exploratory analysis was developed considering the same pool of items for the three dimensions, from item 9 to item 62 (excluding the basic emotions items). Accordingly with the multidimensional structure of the questionnaire and taking into account the theoretical definition of the construct (M. I. Gaete & Fuchs, in press), AB was considered the main dimension of the questionnaire and so the criterion for making decisions. Thus, as one exploratory analysis was done for each of the three dimensions, the factor structure suggested for

the one of the AB dimension was the criterion for deleting items and deciding about the scales as it shows the table 2.

Table Nº 2:
Attention to body dimension. Factor loadings of principal components analysis using a Varimax orthogonal rotation method with Kaiser Normalization.^{a b}

Items	Components and % of variance									
	1	2	3	4	5	6	7	8	9	10
	8.47	7.03	6.42	6.27	5.14	4.40	4.30	4.20	3.89	3.35
	%	%	%	%	%	%	%	%	%	%
46.2 Physical intimacy with my lover	.791									
35.2 Sexual arousal	.728									
57.2 <i>Lovely touching each other with a loved one</i>	.685									
24.2 Receiving sexual touching	.663									
14.2 Orgasm sensation	.644									
13.2 Sexual Desire	.612									
58.2 <i>Hugging with a loved one</i>	.595									
52.2 <i>You are so excited for having sex with your partner but it is not the proper context</i>	.500									
32.2 <i>Trying to see with a very intense light against you</i>		.719								
29.2 Feeling a tasty scent		.702								
27.2 Resting your sight in a dim light room		.682								
28.2 Listening to music		.646								
30.2 Tasting your favourite food		.617								
34.2 <i>Intense and extremely noisy sounds</i>		.576								
39.2 <i>Eating alone at home</i>		.509		.406						
42.2 Giving a public speech			.720							
41.2 Talking face to face with someone very appealing to me			.706							
49.2 Going into a crowded room of unknown people			.696							
38. Accompanied in front of the mirror			.617							
48.2 Being observed by a stranger			.577							
20.2 Sensation after cooling of when it feels hot				.703						
22.2 Sensation after urinate or defecate				.612						
11.2 Sensation after eating with hunger				.598						
16.2 Sensation of rest after sleeping				.582						
12.2 Sensation after drinking when you are thirsty				.531						.409
43.2 Making physical training alone at home					.775					
45.2 Dancing at home alone					.586					
44.2 <i>Making physical training with an instructor</i>					.537					
50.2 Taking sun bath alone at home					.519					
36. Alone in my room					.426					
17.2 Bodily sensation of Cold						.631				
26.2 <i>Feeling of pain and heat of a wound</i>						.621				

Table Nº 2:

Attention to body dimension. Factor loadings of principal components analysis using a Varimax orthogonal rotation method with Kaiser Normalization.^{a b}

Items	Components and % of variance									
	1	2	3	4	5	6	7	8	9	10
	8.47	7.03	6.42	6.27	5.14	4.40	4.30	4.20	3.89	3.35
	%	%	%	%	%	%	%	%	%	%
<i>18.2 Sensation after wrap up warm when it feels cold</i>				.516		.567				
54.2 You want to keep on sleeping at morning but you must wake up							.767			
53.2 You are exhausted but you must keep on studying or working							.752			
56.2 You are engaged in a very important conversation but you have a huge headache							.473		.441	
55.2 You want to engage in some activity but you are ill							.469			
59.2 Kissing at meeting someone you don't know								.749		
60.2 When a stranger gives you a hug								.718		
40.2 Eating at a social event								.441		
31.2 Being pushed away and cramped by a crowd.									.634	
32.2 Internal pain (headache, stomach ache, earache, etc.)						.451			.527	
19.2 Bodily sensation of Hot									.516	
10.2 Thirst sensation										.708
9.2 Hunger sensation										.635
15.2 Sensation of being sleepy, tired or exhausted										.488
21.2 Urinate or defecate bodily needs										.412
Eigen values	14.1	3.25	2.55	2.28	2.04	1.80	1.74	1.63	1.43	1.26
	4									

^a Bolding type indicates items loading <0.5 and considered for being excluded for further analysis.

^b Italic type indicates items excluded for not having coincidence with none of the other two dimensions

AB showed a factorial structure with twelve components explaining the 63.71% of the variance, attention to environment with 16 components explaining the 69% of the variance, and affect intensity with 16 components explaining the 64% of the variance.

The retained scales of the AB dimension were identified by their eigen values (> 1) and if they were before the inflexion points of the Cattell's scree. The items retained were those with the highest factor loading on each scale of the three dimensions and with the highest coincidence between their emergent components. Thus, between the scales retained of the AB dimension, only those scales and items showing the highest

coincidence between the three dimensions were retained for further confirmatory factorial analysis.

After this step, from the twelve factors structure of the questionnaire theoretically defined, nine components were retained. Factor loadings of items of the first ten components at the dimension of AB are summarized in Table 2. The only component excluded was number 6 because it has no coincidence with the other two dimensions.

A new reliability analysis was made to the emergent factorial structure (see at table 1). The scales of *unsatisfied needs* and *unpleasant sensations* were excluded because of their low reliability scores. Between the remaining scales, 3 items were excluded for improving alphas while deleting. Thus, a model with 7 scales and 26 items was proposed to Confirmatory Analysis.

Confirmatory Factorial Analysis (CFA). A first model with seven scales and 25 items retained from the exploratory analysis was tested (see table 3). While the goodness of fit of the first one was not satisfactory, a second model was tested. This second model was shaped by further refinement of items and scales, after looking back to the exploratory analysis and applying more strict criteria both for the factor loading of items and for the reliability of the scales for the three dimensions of the questionnaire and not only for the AB.

Table N° 3:
Confirmatory Factor Analysis. Fit Indices

Attention to body dimension					
Model	$\chi^2/\text{DOF}/p$	CFI	TLI	RMSEA (CI)	SRMR
5 Factors Model	225.977/179/0.010	.962	.955	.039 (.020-.054)	.057
6 Factors Model ^a	414.537/309/0.000	.931	.922	.044 (.032-.055)	.061
7 Factors Model	504.138/329/0.000	.895	.879	.055 (.045-.065)	.063
Attention to environment dimension					
Model	$\chi^2/\text{DOF}/p$	CFI	TLI	RMSEA (CI)	SRMR
5 Factors Model	283.750/179/0.000	.905	.888	.058 (.045-.070)	.084
7 Factors Model	560.034/329/0.000	.837	.812	.064 (.054-.072)	.087

Model	Affect Intensity Dimension				
	$\chi^2/DOF/p$	CFI	TLI	RMSEA (CI)	SRMR
5 Factors Model	310.749/179/0.000	.843	.815	.065 (.053-.077)	.074
7 Factors Model	616.313/329/0.000	.769	.734	.071 (.062-.079)	.077

^a Model with basic emotions scale of attention to body

In this way a final model of 5 scales was shaped: *sexual and erotic sensations, pleasant sensations, satisfied needs, public body, and body-environment conflict*. This model retained 21 items in total from these five scales, and showed better goodness of fit indexes (see table 3) so it was chosen for a final CFA but only for AB including the scale of *basic emotions* already retained at previous steps. This third model for AB dimension showed good enough fit indexes so it seems possible to keep the structure for AB including *basic emotions* scale.

Then, to the total number of 21 items, the initial pool of loose items already mentioned must be added: 1) Usually, you pay more attention to your body, to the environment or both (categorical variable); 2) Usual levels of attention to body (UAB) and to environment (UAE), along with the scale of *basic emotions*: levels of attention to body for each of the six basic emotions (6-point Likert scale, 0-5). This way, the complete final version of the EBEQ comprises a total of 27 items.

Discussion Study 2

Study 2 allows exploration of data about the emergent factorial structure (see table 1). Sexual items proved both at PCA as at CFA a better fit with data grouped together into a single scale. However, they have not changed their item numbers, so sexual scale does not appear as such on the questionnaire, but considered for computing its results. The latter was decided in regards of consistency with the questionnaire format as it was applied for the present study. *Basic emotions* showed good performance but only at the

AB dimension. Two scales of the *sensorial domain* were excluded (*unsatisfied needs* and *unpleasant sensations*), and 4 scales from the *relational domain* (*private body*, *physical contact with a loved one*, *physical contact with a stranger*, and *aggressive contact*). So a final structure of 6 scales and 27 items was finally shaped (see the final conceptual model at table 4).

Table N° 4

Final Multidimensional Conceptual Model of Emotional Bodily Experience cross-situationally

Sensorial Domain			
Bodily sensations that persons experience during daily life			
	Attention to Body	Attention to Environment	Affect Intensity
	Conscious attentional focus on the body	Conscious attentional focus on the environment	Positive, neutral or negative affect intensity
Scales	<i>Basic Emotions</i> ^a : Ekman's six basic emotions		
	<i>Erotic & Sexual</i> : Erotic and sexual bodily sensations		
	<i>Pleasant Sensations</i> : Based on senses of taste, smell, sight, and hearing		
	<i>Satisfied Needs</i> : Bodily sensations at satisfying needs		
Relational Domain			
Subjective bodily experience through different relational contexts			
	Attention to Body	Attention to Environment	Affect Intensity
	Conscious attentional focus on the body	Conscious attentional focus on the environment	Positive, neutral or negative affect intensity
Scales	<i>Public Body</i> : Contexts of public exposure		
	<i>Body-Environment Conflict</i> : Contexts where bodily needs are in conflict with environment requirements		

^a *This scale corresponds only to the attention to body dimension*

Study 3: Testing internal consistency and construct validity.

This last study was aimed to test the final structure of the EBEQ with regards to its internal consistency and construct validity by means of its convergent, divergent, and discriminant validity with related measures. A new instrument like this needs to be tested with other related variables to enable valid interpretations of its results.

The instrument used for assessing the convergent and divergent validity (Scale of Body Connection) (Price & Thompson, 2007) has two uncorrelated sub-scales: 1) Body Awareness (BA-SBC), and 2) Body Disconnection (BD-SBC) that are thought to be correlated with the three dimensions of the EBEQ in opposite directions. Likewise, the global score of SBC is the result of reversing scores of BD-SBC and BA-SBC scores together; thus it is understood as a global measure of body awareness and body connection.

It is hypothesized here that global scores of SBC are significantly and positively associated to the global scores of the dimensions of AB and AI. Likewise, it is expected that BA-SBC will be significantly and positively correlated to the scales of the AB and AI dimensions, while BD-SBC will be significantly and negatively correlated to the scales of AB and AI dimensions. About AE no hypotheses will be proposed because on the one hand it could be thought that AE is positively correlated to BD-SBC and negatively to BA-SBC, but on the other hand, considering that the *feeling body* is thought to be the way of being emotionally related *to the world* (T. Fuchs & Koch, 2014; M. I. Gaete & Fuchs, in press), it seems also reasonable to expect that it would be negatively correlated with BD-SBC and positively with BA-SBC. Thus, AE seems quite exploratory for proposing any hypotheses.

Otherwise, in agreement with the hypothesis of the embodied defense (M. I. Gaete & Fuchs, in press) it is hypothesized that AB is positively associated to eating disorder symptomatology, somatization, and depressivity, especially in regards to attentional focus on bodily signals of negative emotions (ABNegEm).

It is assumed that the relationship with the body should vary according with gender. So, it is hypothesized that females pay more attention to their bodies than males, live their bodies with a higher affective intensity than males, and pay more attention to their bodies at basic emotions. In regards to the ability to distinguish between clinical and non-clinical groups, it is expected to find significant differences between the group of patients diagnosed with eating disorder symptoms and the non-clinical group both at AB and AI dimensions. It is expected higher levels of AB and AI at the scale of *public body* for the group of patients compared to the non-clinical group, and higher levels of AI at the scale of *conflict* for the group of patients compared to the non-clinical group. Otherwise, higher levels of AB and AI at *pleasant sensations, satisfied needs, erotic & sexual* are expected in the non-clinical group as compared to the clinical one. It is also expected higher levels of AB at *conflict* scale in the non-clinical group as compared to the clinical one. Finally, significant differences between both groups in UAB (general attitude) and attentional focus on bodily signals of negative emotions (rage, sadness, fear, and disgust) (ABNegEm) with higher levels for the group of patients are expected too.

Methods

Participants. The clinical sample for discriminant validity was recruited from two Chilean specialized units for eating disorders from 2013 to 2015, and consisted of 27 women referred for specialized treatment. For the aims of this study the only

requirement was to have been diagnosed with an eating disorder by an expert clinician as well as being between 18 and 45 years old. No distinction was made between different sub-types of ED diagnosis. Only women for clinical and non-clinical samples were recruited. The mean age was $M=23.96$ ($SD=4.4$).

The non-clinical sample for comparing with the clinical one was obtained from the larger non-clinical university sample already described above by selecting only females. This group was conformed of 183 females with a mean age of $M= 23.83$ ($SD=5.9$).

For the rest of the analysis reported here the sample corresponds to the same non-clinical university sample of the study 2 (detailed above).

Procedures. The set of questionnaires involved in the present study were aimed to assess theoretically related constructs as body awareness, body dissociation, along with clinical variables as depression, somatization and eating disorders, and socio-demographic data.

Participants of the clinical sample were invited by the clinician with a brief description of the informed consent explained to them. After that they were contacted by the researchers (two undergraduate students of Psychology Faculty trained by the main researcher and the main researcher also). The informed consent was read in detail and explained before answering the survey being accompanied by the researcher to supply support and assistance if required during the process.

Measures.

Sociodemographic and Health Questionnaire (SHQ). Questionnaire that obtained general health information along with sociodemographic data.

Scale of Body Connection (SBC) (Price & Thompson, 2007). It is a twenty item self-reported measure that was designed to assess bodily awareness and bodily dissociation for clinical and/or research purposes. The items are scored on a 5-point scale, ranging from 0-4 with 0 at “not at all” and 4 at “all of the time.” It comprises two subscales that are theoretically opposite and also, in a psychometric sense, they are designed in the opposite direction, hence they are uncorrelated. The sub-scale of Body Awareness (BA-SBC) is focused on physical and emotional integration, by means of attendance to the body and reflection on inner bodily awareness. The sub-scale of Body Dissociation (BD-SBC) is focused on difficulties expressing, attending, and identifying emotions. As a whole, this questionnaire has a general focus on emotional awareness as a relevant aspect of both the body awareness and the body disconnection. The observed Cronbach’s Alpha for the present sample was of .82 for the BA-SBC, and of .70 for the BD-SBC.

Eating Disorders Examination Questionnaire (EDEQ6) (C. Fairburn, & Beglin, S., 1994). It is a 36-item self-reporting questionnaire that assesses core attitudinal eating-related psychopathology. It has four sub-scales: restraint, eating concern, shape concern, weight concern and frequency of binges and of purging behaviours during the last 28 days accordingly with DSM criteria. Each item is assessed on a 7 points scale, with higher scores showing greater severity of symptoms. It was used here to calculate the global scores that correspond to the overall mean of the 4 sub-scales. Likewise, for the present sample the observed Cronbach’s alpha was of .79 for restraint, .80 for eating concern, .90 for shape concern, .85 for weight concern, and of .89 for the global score.

Center of Epidemiological Studies, Depression Scale (CES-D) (Radloff, 1977). This is a 20 item self-reporting questionnaire broadly known for its use in epidemiological studies and especially recommended for screening studies with non-

clinical populations. It asks about frequency of symptoms during the last week by means of a 4-point scale. The observed Cronbach's alpha for the present sample was .85.

Somatization Sub-scale of the Brief Symptoms Inventory BSI-SOM (L. R. Derogatis, 1975) (L. R. M. Derogatis, N., 1983). The somatization sub-scale is aimed to measure physiological symptoms such as diffuse bodily sensations of weakness and dizziness, headaches, along with gastric or respiratory problems, and as each BSI sub-scale is rated on a 5-point scale (0-4) assessing the presentation of symptoms during the last month, ranging from 'not at all' to 'extremely'. The observed Cronbach's alpha for the present sample of BSI-SOM sub-scale was .76.

Results

Internal Consistency and Inter-scale Correlations. The internal reliability of the EBEQ subscales shows an acceptable to excellent Cronbach alpha coefficients ranging from 0.774 to 0.854 at the AB Dimension, from 0.690 to 0.835 at the AE Dimension, and ranging from 0.644 to 0.817 at the AI Dimension (see all at Table 5). At the three dimensions, the Cronbach's alpha was also calculated for the scales if each of their items were separately deleted, and none of them improve the coefficients if deleted with the only exception of item 14 (orgasm sensation) of *erotic & sexual sensations* at AE improving the Cronbach's alpha from .803 to .804. Thus, considering that at the AB and AI it performs well it was decided to preserve this item. Inter-scales correlations showed good enough Pearson's product-moment coefficients for all the scales of the three dimensions, with the exception of *public body* of AI dimension as could be seen at Table 6.

Table N° 5:

Reliability, Item-Scale Correlations, Descriptive Statistics for EBEQ scales.

	Dimension of Attention to body					
	Scales					
	Erotic-Sexual Sensations (4 items)	Pleasant Sensations (4 items)	Satisfied Bodily Needs (5 items)	Public Body (2 items)	Conflict (4 items)	Basic Emotions (6 items)
Alpha	.854	.805	.816	.805	.744	.781
Mean (SD)	4.120(1.018)	2.72(1.10)	3.059(1.049)	3.026(1.078)	3.196(1.081)	2.86(1.004)
Observed range of items	.00 – 5.00	.00 – 5.00	.00 – 5.00	.00 – 5.00	.00 – 5.00	.00 – 5.00
Range of Item-Scale Correlations	.655 - .738	.539 - .660	.580 - .660	.484 - .686	.494 - .582	.464 - .580
	Dimension of Attention to environment					
	Scales					
	Erotic-Sexual Sensations (4 items)	Pleasant Sensations (4 items)	Satisfied Bodily Needs (5 items)	Public Body (2 items)	Conflict (4 items)	
Alpha	.803	.759	.835	.746	.690	
Mean (SD)	2.704(1.284)	2.66(1.08)	2.487(1.108)	3.671(0.965)	2.468(1.084)	
Observed range of items	.00 – 5.00	.00 – 5.00	.00 – 5.00	.00 – 5.00	.00 – 5.00	
Range of Item-Scale Correlations	.519 - .719	.501 - .611	.555 - .681	.392 - .685	.414 - .512	

Table N° 5:

Reliability, Item-Scale Correlations, Descriptive Statistics for EBEQ scales.

	Dimension of Affect Intensity				
	Scales				
	Erotic-Sexual Sensations (4 items)	Pleasant Sensations (4 items)	Satisfied Bodily Needs (5 items)	Public Body (2 items)	Conflict (4 items)
Alpha	.795	.649	.661	.644	.817
Mean (SD)	4.371(.963)	3.551(.928)	3.616(1.153)	-.533(1.626)	-3.162(1.411)
Observed range of items	-.25 – 5.00	.00 – 5.00	-4.40 – 5.00	-4.50 – 4.50	-5.00 – 3.50
Range of Item-Scale Correlations	.577 - .640	.388 - .502	.357 - .487	.310 - .506	.578 - .707

Table N° 6

Pearson Product-Moment Correlations among the Final Scales of EBEQ

Attention to Body Dimension						
Scale	Basic Emotions	Erotic-Sexual	Pleasant	Satisfied	Public Body	Conflict
Basic Emotions	---					
Erotic-Sexual	.292**	---				
Pleasant	.421**	.409**	---			
Satisfied	.412**	.426**	.535**	---		
Public Body	.235**	.368**	.145*	.301**	---	
Conflict	.351**	.379**	.345**	.408**	.330**	---
Attention to Environment						
Scale	Erotic-Sexual	Pleasant	Satisfied	Public Body	Conflict	
Erotic-Sexual	---					
Pleasant	.387**	---				
Satisfied	.209**	.482**	---			
Public Body	.364**	.298**	.324**	---		
Conflict	.259**	.321**	.324**	.209**	---	
Affect Intensity						
Scale	Erotic-Sexual	Pleasant	Satisfied	Public Body	Conflict	
Erotic-Sexual	---					
Pleasant	.249**	---				
Satisfied	.342**	.354**	---			
Public Body	-.005	.057	-.011	---		
Conflict	.230**	.259**	.225**	.250**	---	

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Convergent/Divergent Validity (Table 7). In agreement with our hypotheses, significant positive correlations were found between the global score of SBC and the global scores of AB, AE, and AI dimensions. With the exception of *public body* of affect intensity, each of the scales of the three dimensions are significantly and positively correlated with the global score of SBC. BA-SBC, as expected, showed positive significant correlations with the scales of the dimensions of AB, and AI, with the exception of the scale of *public body* of AI. Otherwise, BA-SBC showed positive and significant correlations with the scales of AE dimension with the exception of the scale of *satisfied needs* that remains uncorrelated. Through its part, BD-SBC, showed significant but small negative correlations with the scales of *pleasant*, *satisfied needs*,

and *conflict* of the dimension of AE, and remained uncorrelated with the rest of the scales of this dimension. In agreement with what was hypothesized, the scales of *erotic & sexual* and *satisfied needs* of the dimension of AI were significantly and negative correlated with BD-SBC, but the scale of *public body* showed the opposite being significantly positive correlated with BD-SBC. Surprisingly, the scales of AB were uncorrelated with BD-SBC. In regard to the initial items of AB and of AE, results showed UAB uncorrelated with SBC overall scores, neither to its sub-scales. By its part UAE remained also uncorrelated to SBC overall scores and to its subscales. Looking at the first item of the questionnaire: Usually you pay more attention to a) your body, b) the environment, or c) same to both, it was found significant mean differences between the individuals who reported paying more attention to the environment, $M=2.7$ ($DS=.50$) compared with those that reported paying the same attention to both, $M=2.9$ ($SD=.43$) at SBC overall scores ($F=4.08, p<.05$) This mean difference was also observed at the BA-SBC with those who reported paying more attention to environment, $M=2.53$ ($SD=.65$) showing significantly lower scores than those that reported paying the same attention to both, $M=2.80$ ($SD=.58$) ($F=3.10, p<.05$).

Table № 7:

Correlations between EBEQ scales and SBC validity measure.

	Dimension of Attention to body						Global Score of Attention to body
	Erotic-Sexual Sensations (4 items)	Pleasant Sensations (4 items)	Satisfied Bodily Needs (6 items)	Public Body (2 items)	Conflict (4 items)	Basic Emotions (6 items)	
SBC Global score	.274**	.273**	.252**	.173**	.197*	.250**	.336**
SBC- BA sub-scale	.300**	.298**	.273**	.295**	.244**	.281**	.406**
SBC- BD sub-scale	-.112	-.111	-.086	.026	-.060	-.058	-.096

*Correlation is significant at the 0.05 level (two tailed)

**Correlation is significant at the 0.001 level (two tailed)

Table Nº 7:

Correlations between EBEQ scales and SBC validity measure.

	Dimension of Attention to environment Scales					Global Score of Attention to environment
	Erotic-Sexual Sensations (4 items)	Pleasant Sensations (4 items)	Satisfied Bodily Needs (6 items)	Public Body (2 items)	Conflict (4 items)	
SBC Global score	.178*	.254**	.187*	.242*	.281**	.332**
SBC- BA sub-scale	.155*	.193**	.121	.352**	.214**	.299**
SBC- BD sub-scale	-.111	-.173**	-.153*	-.018	-.209**	-.193**

*Correlation is significant at the 0.05 level (two tailed)

**Correlation is significant at the 0.001 level (two tailed)

Table Nº 7:

Correlations between ECEQ scales and SBC validity measure.

	Dimension of Affect Intensity (absolute scores)					Global Score of Affect Intensity
	Scales					
	Erotic-Sexual Sensations (4 items)	Pleasant Sensations (4 items)	Satisfied Bodily Needs (6 items)	Public Body (2 items) ^a	Conflict (4 items) ^a	
SBC Global score	.301**	.268**	.199**	-.144	.125*	.251**
SBC- BA sub-scale	.291**	.374**	.137*	.002	.232**	.348**
SBC- BD sub-scale	-.149*	-.057	-.184**	.192**	.031	-.049

*Correlation is significant at the 0.05 level (two tailed)

**Correlation is significant at the 0.001 level (two tailed)

^a Mean scores of these scales are negative so considering the absolute mean scores, significant positive correlations must be understood as the more negative affect intensity the higher scores of SBC sub-scales

Otherwise, looking at the relationship between EBEQ and other clinical related measures, some interesting results were found: BSI-SOM, showed significant positive correlations with the overall mean score of ABNegEm ($r = .219, p < 0.01$), as well as EDEQ global score ($r = .181, p < 0.01$), and CESD scores ($r = .219, p < 0.01$).

Otherwise, the global score of AB (scales, excluding *basic emotions* scale) showed a significant small correlation with EDEQ global scores ($r = .120, p < .05$) reflecting the significant small correlations with subscales of weight concern ($r = .149, p < 0.01$), and of shape concern ($r = .118, p < 0.05$), the subscales of restraint and eating concern were uncorrelated. By its part the item of UAB (general attitude) is significantly correlated with EDEQ global scores ($r = .158, p < 0.01$) but not with somatization or depressivity scores.

Discriminant Validity. The t-test statistic was used to explore mean score differences between groups of females (N= 194) and males (n=131) on AB, and AI global scores, and on the scale of *basic emotions* of AB dimension. As it was expected, results showed a significantly higher global mean score of AB in female group (M= 3.37, SD=0.72) compared with the group of males (M=3.10, SD=0.81), $t(346) = 3.21, p = 0.001$. Likewise, it was also found a significant difference on the global mean scores of AI dimension between females (M= 3.43 SD=0.66), and males (M=3.2, SD=0.76), $t(354) = 3.07, p = 0.002$ as was expected. Finally, women reported a significantly higher mean score of attention to bodily signals of *basic emotions* scale (M= 3.0, SD=.94) compared with men (M=2.7, SD=1.1), $t(408) = 3.22, p = 0.001$.

For distinguishing clinical versus non-clinical participants, a t-test statistics analysis was also used. In agreement with our hypotheses, results showed clinical participants reporting significantly higher scores on UAB (M= 3.37, SD=1.67) than non-clinical participants (M= 1.78, SD=1.4), $t(30.06) = 4.77, p < 0.001$; and

significantly higher scores on ABNegEm (M= 3.71 SD=1.10) than non-clinical participants (M= 3.20 SD=.99), $t(250) = 2.63, p = 0.009$. In regard to global scores of the three dimensions, only global absolute scores of AI showed a significantly higher mean score for the non-clinical group (M= 3.43, SD=.67) compared with the clinical one (M= 3.15, SD=.79), $t(215) = -1.97, p < 0.05$. Looking at the scales of each of the three dimensions, results showed significant mean differences at AB on the scales of *erotic & sexual* with higher mean scores for the non-clinical group (M= 4.20, SD=1.01) compared with the clinical one (M= 3.75, SD=1.43), $t(206) = -1.99, p < 0.05$, of *public body* with higher mean scores for the clinical group (M= 3.75, SD=1.05) compared with the non-clinical one (M= 3.17, SD=1.06), $t(182) = 2.6, p = 0.01$, and of *conflict* with higher scores for the non-clinical group (M= 3.38, SD=1.03) compared with the clinical one (M= 2.83, SD=1.07), $t(176) = -2.47, p = 0.015$. All these results are in agreement with the hypotheses posited here, with the exception of the scale of *pleasant sensations* which did not show differences between both groups. The scales of AE showed not significant differences between groups, with the exception of the scale of *pleasant sensations* with the non-clinical group showing higher mean scores (M= 2.67, SD=1.07) compared to the clinical one (M= 2.21, SD=1.08), $t(188) = -2.03, p < 0.05$. In agreement with our hypothesis, the scale of *public body* of AI dimension showed higher scores for the clinical group (M= 2.61, SD=1.35) compared with the non-clinical one (M= 1.36, SD=1.02), $t(29.88) = 4.52, p < 0.001$ but not the *conflict* scale as was proposed. On the contrary, but in agreement with our hypotheses, AI showed at the scale of *satisfied needs* higher mean scores for the non-clinical group (M= 3.81, SD=.99) compared with the clinical one (M= 2.81, SD=1.17), $t(215) = -4.7, p < 0.001$, along with higher scores at the scale of *erotic & sexual* (M= 4.46, SD=.89) compared

with the clinical one ($M= 3.39$, $SD=1.67$), $t(28.22) = -3.22$, $p = 0.003$, but it was not the same for the scale of *pleasant sensations* as was proposed.

Discussion Study 3

EBEQ showed a good enough performance at testing its psychometric properties, with acceptable to excellent Cronbach's alpha coefficients on scales of the three dimensions (AB, AE, and AI). Results showing positive correlations between global scores of AB, AE, and AI dimensions and SBC global scores provide evidence of convergent validity. Negative and significant correlation between global scores of AE and BD-SBC provide partial evidence of divergent validity. Further, negative and significant correlations between BD-SBC and *erotic & sexual scale*, and *satisfied needs* of AI, also provide some evidence of divergent validity. BD-SBC remains uncorrelated both with global scores of AB and its scales showing that AB is a convergent measure with BA-SBC but something different from BD-SBC neither convergent nor divergent. In regards to the initial questions, UAB significant positive correlation with EDEQ global scores seems congruent with the attitude of high focusing on the body associated to ED symptoms as the 'objectification' of the body or 'embodied defense' (M. I. Gaete & Fuchs, in press). Otherwise, meaningful significant positive correlations of ABNegEm with BSI-SOM, EDEQ, and CESD scores were found, supporting the assumption that psychopathology is related to disturbances of bodily resonance of emotions (T. Fuchs, 2013).

In regards of discriminant validity, and in agreement with our hypotheses, AB and AI showed significant mean differences between gender groups with significantly higher global scores on both dimensions for females. The same was observed with the scale of *basic emotions* of AB showing also that females group have significantly higher mean scores than males.

It was found a satisfactory ability for distinguishing between clinical and non-clinical groups. Results show that ED patients tend to usually pay more attention to their bodies, to pay more attention to their bodies when feeling negative emotions, and at contexts of public exposure. ED patients group also show that they tend to experience their bodies at contexts of public exposure with higher levels of AI than the non-clinical group. The non-clinical group were shown to experience their bodies with higher overall AI than ED patients, to pay more attention to their bodies at erotic & sexual sensations and at body-environment conflicts than ED patients. The non-clinical group also showed paying more attention to the environment at pleasant bodily sensations than ED patients group.

General Discussion

The aim of developing a way of measuring EBE as multidimensional and dynamic phenomenon, in the simplest and shortest form, was satisfactorily accomplished.

During the process the piloting applications which provided feedback seem relevant, about both form and content, of items, scales and instructions. This way, the most meaningful change was the way of asking about body-self relationship. Taking a step back to theory and looking again to EBE construct leads to change this aspect by asking about levels of attention to body thought to be quite satisfactory on approaching the active (explicit dimension of EBE) facet of bodily awareness. Likewise, asking also about levels of attention to environment seems the needed complement, as the passive aspect of bodily awareness, or the implicit dimension of EBE (M. I. Gaete & Fuchs, in press). Therefore, the final three-dimensional and cross-situational structure of the questionnaire by AB, AE, and AI dimensions seems a good way of embracing the dynamism, and multidimensionality of EBE construct.

The final structure of EBEQ (with 27 items, 6 scales for AB, and 5 scales for AE and AI dimensions), showed good enough psychometric properties. *Public body* scale deserves special mention as it performed differently from the rest of the scales being the only one that was uncorrelated with 3 of the other 4 scales at the dimension of AI (see table 5), showing low but significant correlation only with *conflict scale* of AI. This result support the theoretical distinction between ‘relational’ and ‘sensorial’ domains. It is theoretically consistent that *public body* correlates to *conflict* while these two remained within the ‘relational’ scales. In regards to convergent and divergent validity, *public body* of AI dimension showed again no correlation with BA-SBC, as the rest of the scales did; and showed a positive significant correlation with BD-SBC opposite to the AI scales of *satisfied needs* and *erotic & sexual* that were negatively correlated. In agreement with these results, *public body* differentiates between clinical and non-clinical female groups by higher mean scores on AB and AI dimensions for the clinical one. Thus, results orient to think that higher levels of AI at public exposure contexts is an indicator of body disconnection and, along with higher levels of AB at public exposure, of ED psychopathology. It seems also consistent with theory affect intensity of *public body* not correlating with BA-SBC but correlated with BD-SBC as measuring some form of social anxiety. Further, these results also reinforce the idea of the different possible uses of the questionnaire, partly or as a whole, or at least to take into account that each scale could be understood by itself, as well as putting them all together. Further research on discriminant validity with other mental health related measures could shed light on this point.

Looking at overall results on convergent-divergent validity, EBEQ proved good enough convergence of *global scores* of the three dimensions (AB, AE, and AI) with SBC global scores, along with BA-SBC scores. In regards to BD-SBC scores, only AE

global scores, showed to be negative correlated, while AB, and AI *global scores* remained uncorrelated. On the one hand, these results reaffirm AE dimension as measuring the implicit or passive dimension of EBE which requires the body as the means by which living and keeping an active relationship with the environment. This is quite the opposite of being disconnected from the body and, on the other hand, reaffirm that the three dimensions are related in some way with body connection and body awareness as was theoretically proposed. Further, results showing significantly lower mean scores on SBC global scores as well as on BA-SBC between individuals who reported paying more attention to environment compared to those who reported paying the same to both body and environment orient to think that paying attention to body *and* to environment are closer to bodily awareness than a usual attitude of paying more attention to the environment only. It is also in agreement with the notion of the ‘lived body’ (Merleau-Ponty & Smith, 1996; Shear & Varela, 1999) that requires both to be ‘here’ within your body, and ‘there’ at the requirements of environment.

In regards of discriminant validity, and supporting our hypotheses, EBEQ showed satisfactory ability for distinguishing between gender groups, together with distinguishing between clinical and non-clinical samples of females. Although results on the general population sample showed females experiencing their bodies with higher AI than males, results of comparison between clinical and non-clinical samples of females showed patients experiencing their bodies with higher AI than non-patients. Further research can look for associations of these results with low interoceptive awareness reported on ED patients, along with associations with somatic expression of depressive symptoms in women compared with men. Results on AB of *erotic & sexual* showing significantly higher scores for the non-clinical group, make sense thinking that focusing the attention to one’s body at erotic and sexual sensations could be fearful for

persons who are unsatisfied with their bodies, moreover, if there is some history of sexual abuse which is commonly associated with ED symptoms. Otherwise, the non-clinical sample paying more attention to body at *body-environment conflicts* than patients, makes also sense as a healthier way for resolving those conflicts.

There are not yet available multidimensional and cross-situational instruments assessing *emotional bodily experience*. It is expected that this new framework can be clinically useful for distinguishing between adaptive and maladaptive forms of EBE, that allows different uses with the chance of applying EBEQ as a whole or by parts, depending on the proposed aims, and can contribute through a new point of view in comprehension of somatic expressions of psychopathology.

References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. . Arlington, VA: American Psychiatric Association.
- Anderson, R. (2006). Body intelligence scale: Defining and measuring the intelligence of the body. *The Humanistic Psychologist, 34*(4), 357-367.
- Barsky, A. J., & Wyshak, G. (1990). Hypochondriasis and somatosensory amplification. *The British Journal of Psychiatry, 157*(3), 404-409.
- Barsky, A. J., Wyshak, G., & Klerman, G. L. (1990). The somatosensory amplification scale and its relationship to hypochondriasis. *Journal of psychiatric research, 24*(4), 323-334.
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.
- Bekker, M. H., Croon, M. A., van Balkom, E. G., & Vermeë, J. B. (2008). Predicting individual differences in autonomy-connectedness: the role of body awareness, alexithymia, and assertiveness. *J Clin Psychol, 64*(6), 747-765.
doi:10.1002/jclp.20486
- Bogaerts, K., Millen, A., Li, W., De Peuter, S., Van Diest, I., Vlemincx, E., . . . Van den Bergh, O. (2008). High symptom reporters are less interoceptively accurate in a symptom-related context. *J Psychosom Res, 65*(5), 417-424.
doi:10.1016/j.jpsychores.2008.03.019
- Bogaerts, K., Van Eylen, L., Li, W., Bresseleers, J., Van Diest, I., De Peuter, S., . . . Van den Bergh, O. (2010). Distorted symptom perception in patients with medically unexplained symptoms. *J Abnorm Psychol, 119*(1), 226-234.
doi:10.1037/a0017780

- Borkenhagen, A., Klapp, B. F., Brähler, E., & Schoeneich, F. (2008). Differences in the Psychic Representation of the Body in Bulimic and Anorexic Patients: A Study with the Body Grid. *Journal of Constructivist Psychology, 21*(1), 60-81.
doi:10.1080/10720530701734372
- Broccoli, T. L. (2008). *Relationship between Self and Physical Body: An Examination of the Phenomenon of Disconnect*. (Doctor of Philosophy Graduate Program in Psychology), The State University of New Jersey, New Brunswick, New Jersey.
- Brown, T. A., Cash, T. F., & Mikulka, P. J. (1990). Attitudinal body-image assessment: factor analysis of the Body-Self Relations Questionnaire. *J Pers Assess, 55*(1-2), 135-144. doi:10.1080/00223891.1990.9674053
- Cameron, O. G. (2001). Interoception: The Inside Story—A Model for Psychosomatic Processes. *Psychosomatic Medicine, 63*, 697-710.
- Cameron, O. G. (2002). *Visceral Sensory Neuroscience. Interoception*. Oxford: Oxford University Press.
- Cioffi, D. (1991a). Beyond Attentional Strategies: A Cognitive-Perceptual Model of Somatic Interpretation. *Psychological Bulletin, 109*(1), 25-41.
- Cioffi, D. (1991b). Sensory awareness versus sensory impression: Affect and attention interact to produce somatic meaning. *Cognition and Emotion, 5*(4), 275-294.
doi:10.1080/02699939108411041
- Cordero, C. (1999). Chile Patent No. Centro de Integración Cognitivo Corporal. © 2015: ICC.
- De Berardis, D., Campanella, D., Gambi, F., La Rovere, R., Sepede, G., Core, L., . . . Ferro, F. M. (2007). Alexithymia, fear of bodily sensations, and somatosensory amplification in young outpatients with panic disorder. *Psychosomatics, 48*(3), 239-246. doi:10.1176/appi.psy.48.3.239

- Derogatis, L. R. (1975). Brief Symptom Inventory. *Baltimore: Clinical Psychometric Research.*
- Derogatis, L. R. M., N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine, 13*, 595-605.
- Ekman, P. (1999). Facial expressions. *Handbook of cognition and emotion, 16*, 301-320.
- Eshkevari, E., Rieger, E., Musiat, P., & Treasure, J. (2014). An Investigation of Interoceptive Sensitivity in Eating Disorders Using a Heartbeat Detection Task and a Self-report Measure. *European Eating Disorders Review, 22*(5), 383-388.
- Fairburn, C., & Beglin, S. (1994). Assessment of eating disorder psychopathology: interview or self-report questionnaire? *Int J Eat Disord, 16*, 363-370.
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory. *Psychology of women quarterly, 21*(2), 173-206.
- Fuchs, T. (2013). The phenomenology of affectivity. In M. D. K. W. M. Fulford, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini & T. Thornton (Ed.), *Handbook of the Philosophy of Psychiatry* (pp. 612-631). Oxford: Oxford University Press.
- Fuchs, T., & Koch, S. (2014). Embodied Affectivity: on moving and being moved. *Frontiers in Psychology, 5*, 1-12. doi:doi: 10.3389/fpsyg.2014.00508
- Fuchs, T. S., J. . (2009). Embodiment and psychopathology: a phenomenological perspective. *Current Opinion in Psychiatry, 22*(6), 570-575.
doi:doi:10.1097/YCO.0b013e3283318e5c
- Furman, D. J., Waugh, Ch. E., Bhattacharjee, K., Thompson, R. J., H.Gotlib, I. (2013). Interoceptive awareness, positive affect, and decision making in Major Depressive Disorder. *Journal of Affective Disorders, 151*, 780-785.

- Gaete, M., & Fuchs, T. (in press). From Body Image to Emotional Bodily Experience in Eating Disorders. *Journal of Phenomenological Psychology*, in press.
- Gallagher, S. (2005). *How the body shapes the mind*: Cambridge Univ Press.
- Garner, D. M., Olmstead, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International journal of eating disorders*, 2(2), 15-34.
- Harshaw, C. (2015). Interoceptive Dysfunction: Toward an Integrated Framework for Understanding Somatic and Affective Disturbance in Depression. *Psychological Bulletin*, 141(2), 311-363.
- Hart, N., McGowan, J., Minati, L., & Critchley, H. D. (2013). Emotional regulation and bodily sensation: interoceptive awareness is intact in borderline personality disorder. *Journal of personality disorders*, 27(4), 506-518.
- Haynes, S. N., Richard, D., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological assessment*, 7(3), 238.
- Henningsen, P., Zimmermann, T., & Sattel, H. (2003). Medically Unexplained Physical Symptoms, Anxiety, and Depression: A Meta-Analytic Review. *Psychosomatic Medicine*, 65(4), 528-533.
- Herbert, B., & Pollatos, O. . (2012). The Body in the Mind: On the Relationship between Interoception and Embodiment. *Topics in Cognitive Science*, 4(4), 1-13.
doi:10.1111/j.1756-8765.2012.01189.x
- Herbert, B. M., Blechert, J., Hautzinger, M., Matthias, E., & Herbert, C. (2013). Intuitive eating is associated with interoceptive sensitivity. Effects on body mass index. *Appetite*, 70, 22-30.

- Herbert, B. M., Herbert, C., Pollatos, O., Weimer, K., Enck, P., Sauer, H., & Zipfel, S. (2012). Effects of short-term food deprivation on interoceptive awareness, feelings and autonomic cardiac activity. *Biological Psychology*, *89*(1), 71-79.
- Herbert, B. M., Herbert, C. and Pollatos, O. (2011). On the Relationship Between Interoceptive Awareness and Alexithymia: Is Interoceptive Awareness Related to Emotional Awareness? *Journal of Personality*, *79*(5), 1150-1175.
doi:10.1111/j.1467-6494.2011.00717.x
- Herbert, B. M., & Pollatos, O. (2014). Attenuated interoceptive sensitivity in overweight and obese individuals. *Eating Behaviors*, *15*(3), 445-448.
- Hollitt, S., Kemps, E., Tiggemann, M., Smeets, E., & Mills, J. S. (2010). Components of attentional bias for food cues among restrained eaters. *Appetite*, *54*(2), 309-313.
- Jansen, A., Nederkoorn, C., & Mulkens, S. (2005). Selective visual attention for ugly and beautiful body parts in eating disorders. *Behaviour research and therapy*, *43*(2), 183-196.
- Johnson, M. (2013). *The body in the mind: The bodily basis of meaning, imagination, and reason*: University of Chicago Press.
- Klabunde, M., Acheson, D. T., Boutelle, K. N., Matthews, S. C., & Kaye, W. H. (2013). Interoceptive sensitivity deficits in women recovered from bulimia nervosa. *Eating Behaviors*, *14*(4), 488-492.
- Mailloux, J., & Brener, J. (2002). Somatosensory Amplification and Its Relationship to Heartbeat Detection Ability. *Psychosomatic Medicine*, *64*, 353-357.
- Mehling, W. E., Gopisetty, V., Daubenmier, J., Price, C. J., Hecht, F. M., & Stewart, A. (2009). Body awareness: construct and self-report measures. *PLoS One*, *4*(5), e5614. doi:10.1371/journal.pone.0005614

- Mehling, W. E., Price, C., Daubenmier, J. J., Acree, M., Bartmess, E., & Stewart, A. (2012). The Multidimensional Assessment of Interoceptive Awareness (MAIA). *PLoS One*, 7(11), e48230. doi:10.1371/journal.pone.0048230
- Merleau-Ponty, M., & Smith, C. (1996). *Phenomenology of perception*: Motilal Banarsidass Publishe.
- Miller, L. C., Murphy, R., & Buss, A. H. (1981). Consciousness of body: Private and public. *Journal of Personality and Social Psychology*, 41(2), 397.
- Olfson, M., & Gameroff, M. J. (2007). Generalized anxiety disorder, somatic pain and health care costs. *General Hospital Psychiatry*, 29(4), 310-316.
- Pollatos, O., Dietel, A., Herbert, B. M., Wankner, S., Wachsmuth, C., Henningsen, P., Sack, M. (2011). Blunted autonomic reactivity and increased pain tolerance in somatoform patients. *Pain*, 152, 2157-2164.
- Pollatos, O., Kurz, A.-L., Albrecht, J., Schreder, T., Kleemann, A. M., Schöpf, V., . . . Schandry, R. (2008). Reduced perception of bodily signals in anorexia nervosa. *Eating Behaviors*, 9(4), 381-388.
- Price, C. J., & Thompson, E. A. (2007). Measuring dimensions of body connection: body awareness and bodily dissociation. *J Altern Complement Med*, 13(9), 945-953. doi:10.1089/acm.2007.0537
- Probst, M., Pieters, G., & Vanderlinden, J. (2008). Evaluation of body experience questionnaires in eating disorders in female patients (AN/BN) and nonclinical participants. *Int J Eat Disord*, 41(7), 657-665. doi:10.1002/eat.20531
- R Core Team. (2014). Vienna, Austria Patent No.: T. R. F. f. S. Computing.
- Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. . *Applied Psychological Measurement*, 1, 385-401.

- Reisenzein, R., & Hofmann, T. (1990). An investigation of dimensions of cognitive appraisal in emotion using the repertory grid technique. *Motivation and Emotion, 14*(1), 1-26.
- Schaefer, M., Egloff, B., & Witthöft, M. (2012). Is interoceptive awareness really altered in somatoform disorders? Testing competing theories with two paradigms of heartbeat perception. *J Abnorm Psychol, 121*(3), 719.
- Schneider, G., Mendler, T., Heuft, G., & Burgmer, M. (2008). Der Körper in der Konflikt-und Strukturdiagnostik der Operationalisierten Psychodynamischen Diagnostik-Bezug zu Körperkonzepten in der Selbstauskunft. *Zeitschrift für Psychosomatische Medizin und Psychotherapie, 54*(2), 132-149.
- Shear, J., & Varela, F. J. (1999). *The view from within: First-person approaches to the study of consciousness*: Imprint Academic.
- Smith, E., & Rieger, E. (2006). The effect of attentional bias toward shape-and weight-related information on body dissatisfaction. *International journal of eating disorders, 39*(6), 509-515.
- Stanghellini, G., Castellini, G., Brogna, P., Faravelli, C., & Ricca, V. (2012). Identity and eating disorders (IDEA): a questionnaire evaluating identity and embodiment in eating disorder patients. *Psychopathology, 45*(3), 147-158.
doi:10.1159/000330258
- Surveygizmo. (2010). Surveygizmo. Retrieved from Available:
www.surveygizmo.com
- Vaccarino, A. L., Sills, T. L., Evans, K. R., and Kalali, A. H. (2009). Multiple Pain Complaints in Patients With Major Depressive Disorder. *Psychosomatic Medicine, 71*, 159-162.

Varela, F. J., Thompson, E., & Rosch, E. (1993). *The embodied mind. Cognitive Science and Human Experience*. London: MIT press.

Zucker, N., & Harshaw, C. (2012). Emotion, Attention, and Relationships: A Developmental Model of Self-Regulation in Anorexia Nervosa and Related Disordered Eating Behaviors. In J. Lock (Ed.), *The Oxford Handbook of Developmental Perspectives on Child and Adolescent Eating Disorders*. (pp. 67-87). London: Oxford Press.

Zucker, N., Wagner, H. R., Merwin, R., Bulik, C. M., Moskovich, A., Keeling, L., & Hoyle, R. (2015). Self-focused attention in anorexia nervosa. *International journal of eating disorders*, 48(1), 9-14.

PART III. TESTING THE ASSOCIATION OF EMOTIONAL BODILY EXPERIENCE QUESTIONNAIRE (EBEQ) WITH CLINICAL AND CULTURAL VARIABLES.

ARTICLE 1: The Embodied Defense: Exploring the Role of Attentional Focus on the Body in the Relationship between Depressive and Eating Disorder Symptoms. *SUBMITTED.*

Gaete, M. I., De la Parra, G., Vaccarezza, S., Carrasco, J., Volante, E., Pumarino, D.

(2015). The Embodied Defense: Exploring the Role of Attentional Focus on the Body in the Relationship between Depressive and Eating Disorder Symptoms.

Submitted to: European Eating Disorders Review.

“Tantos motivos para estar triste... Quisiera tantas veces volver a mi infancia...mejor dicho, al momento antes de nacer, donde mi alma era un eco en el vacío...donde nada podía tocarme, ni el rasguño de una mosca podía dañarme”.

(Andrea Carrió, escribió en su muro de internet días antes de morir de anorexia, El Mercurio de Valparaíso, Jueves 30 de Agosto de 2007)

“A lot of reasons to be sad...I would like many times going back to my childhood...better said, before the moment to be born, when my soul was only an echo within emptiness...when nothing could touch me, even the scratch of a fly cannot harm me”.

(Andrea Carrió, patient suffering of Anorexia Nervosa wrote this note on Internet blog days before dying, El Mercurio de Valparaíso, Jueves 30 de Agosto de 2007)

Abstract

Objective. To explore the role of *attentional focus on bodily signals of negative emotions* on the association between depressive and eating disorder (ED) symptoms.

Method. A cross-sectional analysis was done by means of a self-reported set of questionnaires applied to 491 adults (ages 18-45) from a non-clinical population. Participants were asked about levels of attention to their bodies through the basic emotions (EBEQ), ED symptomatology (EDEQ), and depressive symptoms (CESD).

Results. There was a significant indirect effect of depressive symptoms on eating disturbances through the attention to bodily signals of negative emotions. Direct Effect, $b=0.07$, $p<0.001$, and Indirect Effect, $b=0.007$, 95% CI [0.002, 0.014]. **Discussion.**

Results give support to the *embodied defense hypothesis* which proposes that ED symptoms express a defense mechanism against negative emotions by means of an increased attentional focus on the body instead of attending to affective requirements. Further research is needed for replication on clinical samples.

Keywords: Embodied defense, attentional focus on the body, depressive symptoms, eating disorder symptoms.

The disturbed experience of the body on eating disorders (EDs) has been broadly studied by its symptoms of body dissatisfaction, weight, shape, and eating concerns, drive for thinness, fear of fatness, and body image disturbance and constitutes an important part of their diagnosis (American Psychiatric Association, 2000, 2013). Although it is accepted that beyond those symptomatic expressions there are huge emotional regulation problems, the mechanisms by which the emotional dysregulation is related to EDs it is not well explained (Bydlowski et al., 2005; Zucker & Harshaw, 2012). It was recently proposed by Zucker and Harshaw (2012) that attentional rigidity has a role in emotional regulation and in ED symptoms ; however, there is no evidence available about the role of heightened attentional focus *on the body* on ED psychopathology beyond the already mentioned symptomatic expression.

Attentional focus on the body is an inherent aspect of bodily awareness which has been mostly addressed by means of the interoceptive awareness scale of the Eating Disorders Inventory (EDI) (Garner et al., 1983) , but has not been considered as a phenomenon that by itself deserves to be investigated beyond its symptomatic manifestations. However, through laboratory setting studies done during the last decade, a promising line of research has started to emerge showing associations between interoceptive deficits and EDs (B. M. Herbert & Pollatos, 2014; O. Pollatos et al., 2008).

Thus, the association between a heightened attentional focus on the body expressed by symptoms, along with the reported interoceptive deficits could be explained by findings showing that a hypervigilant and anxious attentional focus on the body does not necessarily lead to an improvement of the accuracy on interoceptive awareness (Bogaerts et al., 2008; Bogaerts et al., 2010; Mehling et al., 2009).

Regarding high comorbidity of depressive symptoms and EDs (American Psychiatric Association, 2013), the present study is based on previous conceptualization of what was called *embodied defense mechanism* on EDs (M. I. Gaete & Fuchs, in press) which proposes that ED symptoms are a form of defense mechanism against bodily resonance of negative emotions. So the ‘something is happening’ bodily signals of emotions (Damasio, 2008) is replaced by a ‘something is wrong with my body’ expressed mainly through body dissatisfaction and body image disturbance. Thus, by suppressing the bodily resonance of emotions, patients recover a sense of safety and self-control. However, by means of a detached affective experience that this defense conveys, they stay in a difficult position for further adaptive responses to emotional requirements of the environment. This way, they lose their ‘first person’ experience of the body, replacing the self and others dynamic for a rigid self-body (as ‘external object’) dynamic. This is what was called *the tyranny of the self over the body* in which the ‘too much’ of emotions turns into a ‘too much’ of food or a ‘too much’ of the body (M. I. Gaete & Fuchs, in press), leading patients to use their bodies as the object towards which emotional arousal is directed.

In agreement with the *embodied defense hypothesis* (M. I. Gaete & Fuchs, in press), it is hypothesized here that depressive symptoms (DEP-S) are associated with eating disorder symptoms (ED-S) and with attention to bodily signals of rage and sadness (ABRS). It is also proposed that the ABRS is associated to ED-S, and that the association between DEP-S and ED-S is mediated by ABRS.

Methods

Participants and Procedures

By means of a cross-sectional design, an online survey (Surveygizmo, 2010) was applied to a sample of 491 adults from a non-clinical population recruited by using authorized databases of mailing lists of undergraduate and post-graduate students of the Faculties of Medicine and Psychology from the University of Chile and the Pontifical Catholic University of Chile. It is comprised of 301 females (61.3 %) and 190 males (38.7 %) with a mean age of 23.61 (SD=5.75). Once participants logged onto the website they found the informed consent first. Only after signing as agreed, they were able to begin answering the survey. The present study is part of a broader research project with the ethical approval from the Ethical Committee for Research on Humans Beings from the Medicine Faculty of the University of Chile. The survey consists of a set of self-reported questionnaires assessing ED symptoms by the Eating Disorders Examinations Questionnaire (EDEQ) (C. Fairburn, & Beglin, S., 1994) Cronbach's alpha for the present study was of 0.89, depressive symptoms (DEP-S) by the Center of Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977) with an observed Cronbach's alpha of 0.85, and Emotional Bodily Experience (EBEQ) (M. I. Gaete, De la Parra, G., Pereira, X., Armijo, I., Carrasco, J., Vaccarezza, S., Volante, E., Pumarino, D., 2015) with a Cronbach's alpha for the scale of attentional focus on the body at *basic emotions* (P. Ekman, 1999) of 0.78 (corresponding to the scale used for this study). EBEQ (submitted) is a new assessment tool aimed at measuring the emotional bodily experience by a multidimensional and cross-situational approach. It asks about the level of attentional focus on bodily signals of six basic emotions, along with another five scales asking about attentional focus on the body, on the environment, and affect intensity through different bodily states and relational contexts. Attentional focus on

bodily signals of basic emotions was asked by means of a Likert scale ranging from 0 (none) to 5 (too much). The ‘too much’ option was added intentionally in order to capture the experience of attending the body that it is felt as ‘too much’ assuming that persons who mark this choice are considering that it is over their own limits. Otherwise, sociodemographic information and other questionnaires belonging to the aims of the whole research project, but not part of the present study, were part of the complete survey.

Data Analysis

First the associations between DEP-S, ED-S, and ABRS were explored by means of Pearson’s correlation coefficients. Further, the combined effect of DEP-S and ABRS on ED-S was explored by means of *PROCESS* command (Hayes, 2012). It was tested if the association between DEP-S and ED-S could be explained by their relationship to ABRS.

Results

DEP-S showed significant and positive associations with ED-S ($r = .353, p < 0.001$) and with ABRS ($r = .221, p < 0.001$). By its part, ABRS showed also a significant and positive association with ED-S ($r = .214, p < 0.001$).

There was a significant indirect effect of DEP-S on ED-S through ABRS, $b = 0.007$, BCa CI [0.002, 0.014], which represents a small but significant effect, $k^2 = 0.034$, 95% BCa [0.009, 0.070] (see figure 1).

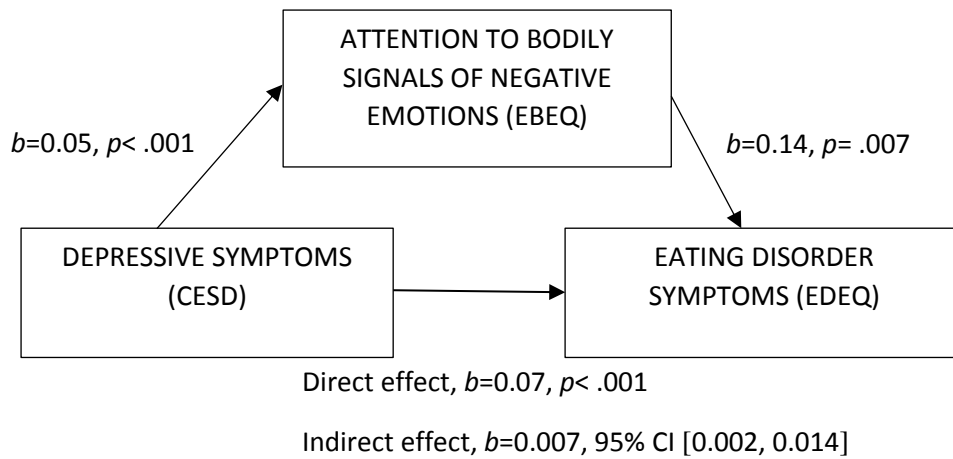


FIGURE 1. Mediation Role of Attention to Bodily signals of Negative Emotions (Rage and Sadness) on the Association between Depressive Symptoms and Eating Disorders Symptoms.

Discussion

Results give support to the hypothesis of embodied defense (M. I. Gaete & Fuchs, in press) by showing that depressive symptoms are associated to a heightened attentional focus on bodily signals of rage and sadness, and by this mean, with ED-S. Thus, it is in agreement with the idea that ED symptoms reflect a defense mechanism against negative emotions expressed through a heightened focus on the body as a form of ‘objectification’. It means that controlling or manipulating the body through ED symptoms reflect a way of obtaining relief from negative emotions which are not possible to tolerate or cope with by unfolding adaptive resources. If the ‘somatic markers’ hypothesis (Damasio, 2008) is taken into account, along with the average age of symptoms onset (during puberty and adolescence), the lack of emotional resources available for those adolescents on coping with requirements of their daily life and on making adaptive and emotional based decisions seems understandable. Without this basic resource, bodily resonance of emotions, and living the body as ‘object’ of mistreatment and control they feel secure but affectively detached. Thus, increasing the

attention to bodily signals of negative emotions seems part of the objectification of the body as an efficient but unhealthy defense mechanism. Further, it could be assumed that self-organization development as a critical task of adolescence (Zucker & Harshaw, 2012) would be impaired by this maladaptive mechanism completing the vicious circle. Considering the loss of a ‘first person’ position of the body, which means that the body is no longer the means to living daily life, being in turn an object of a tense and rigid attentional focus and manipulation, the usefulness of the so called ‘mindful techniques’ seems promising in helping patients recover their ‘first person’ position of their lived bodies (M. I. Gaete & Fuchs, in press).

The present study is the first one looking at the role of *attentional focus on bodily signals of negative emotions of rage and sadness* on EDs. It is expected that this could be a first step on developing new pathways of ED psychopathology that deepen the role of embodied affectivity (T. Fuchs & Koch, 2014) and emotional bodily experience (M. I. Gaete & Fuchs, in press). However, some limitations that must be mentioned are: the use of a non-clinical population, and the cross-sectional design that limits the possibility of making definite conclusions about the implication of developmental processes. Therefore, further research must look for the replication of these findings with clinical samples, and testing the idea of the impairment that *embodied defense* implies for the developmental process of self-organization on adolescents: it must certainly be tested by longitudinal designs.

Finally, it is expected that looking at the attentional focus on bodily signals of basic emotions could be a useful tool for research, and a means for the development of new psychotherapeutic strategies.

REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual-text revision (DSM-IV-TRim, 2000)*: American Psychiatric Association.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. . Arlington, VA: American Psychiatric Association.
- Bogaerts, K., Millen, A., Li, W., De Peuter, S., Van Diest, I., Vlemincx, E., . . . Van den Bergh, O. (2008). High symptom reporters are less interoceptively accurate in a symptom-related context. *J Psychosom Res*, *65*(5), 417-424.
doi:10.1016/j.jpsychores.2008.03.019
- Bogaerts, K., Van Eylen, L., Li, W., Bresseleers, J., Van Diest, I., De Peuter, S., . . . Van den Bergh, O. (2010). Distorted symptom perception in patients with medically unexplained symptoms. *J Abnorm Psychol*, *119*(1), 226-234.
doi:10.1037/a0017780
- Bydlowski, S., Corcos, M., Jeammet, P., Paterniti, S., Berthoz, S., Laurier, C., . . . Consoli, S. M. (2005). Emotion-processing deficits in eating disorders. *International journal of eating disorders*, *37*(4), 321-329.
- Damasio, A. (2008). *Descartes' error: Emotion, reason and the human brain*: Random House.
- Ekman, P. (1999). Facial expressions. *Handbook of cognition and emotion*, *16*, 301-320.
- Fairburn, C., & Beglin, S. (1994). Assessment of eating disorder psychopathology: interview or self-report questionnaire? *Int J Eat Disord*, *16*, 363-370.
- Fuchs, T., & Koch, S. (2014). Embodied Affectivity: on moving and being moved. *Frontiers in Psychology*, *5*, 1-12. doi:doi: 10.3389/fpsyg.2014.00508

- Gaete, M. I., De la Parra, G., Pereira, X., Armijo, I., Carrasco, J., Vaccarezza, S., Volante, E., Pumarino, D. (2015). Emotional Bodily Experience Questionnaire: Development and Psychometric Properties. *Submitted*.
- Gaete, M. I., & Fuchs, T. (in press). From Body Image to Emotional Bodily Experience in Eating Disorders. *Journal of Phenomenological Psychology, in press*.
- Garner, D. M., Olmstead, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International journal of eating disorders, 2*(2), 15-34.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.
- Herbert, B. M., & Pollatos, O. (2014). Attenuated interoceptive sensitivity in overweight and obese individuals. *Eating Behaviors, 15*(3), 445-448.
- Mehling, W. E., Gopisetty, V., Daubenmier, J., Price, C. J., Hecht, F. M., & Stewart, A. (2009). Body awareness: construct and self-report measures. *PLoS One, 4*(5), e5614. doi:10.1371/journal.pone.0005614
- Pollatos, O., Kurz, A.-L., Albrecht, J., Schreder, T., Kleemann, A. M., Schöpf, V., . . . Schandry, R. (2008). Reduced perception of bodily signals in anorexia nervosa. *Eating Behaviors, 9*(4), 381-388.
- Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. . *Applied Psychological Measurement, 1*, 385-401.
- Surveygizmo. (2010). Surveygizmo. Retrieved from Available: www.surveygizmo.com
- Zucker, N., & Harshaw, C. (2012). Emotion, Attention, and Relationships: A Developmental Model of Self-Regulation in Anorexia Nervosa and Related Disordered Eating Behaviors. In J. Lock (Ed.), *The Oxford Handbook of*

Developmental Perspectives on Child and Adolescent Eating Disorders. (pp. 67-87). London: Oxford Press.

ARTICLE 2: The Role of Culture in the Association between Attentional focus on the body and Eating Disorder Symptoms. *SUBMITTED.*

Gaete, M. I., De la Parra, G., Carrasco, J., Vaccarezza, S., Volante, E., Pumarino, D., Cierpka, M. (2015). The Embodied Defense: Exploring the Role of Attentional Focus on the Body in the Relationship between Depressive and Eating Disorder Symptoms. *Submitted to: Journal of Cross-Cultural Psychology.*

“Every language grants us eloquence when it is time to cry for help. Every culture has a rich set of idioms for the expression of distress aimed at mobilizing an effective social response. Calling attention to the body in pain or discomfort is one way to let others know something is wrong”

(Kirmayer, 1984) p.159.

The Role of Culture in the Association between Attentional focus on the body and
Eating Disorder Symptoms

Abstract

Objective. To explore the role of culture in the *attentional focus on the body* (AB) in relation to eating disorder symptoms. **Methods.** The design of this study was exploratory, comparative and cross-sectional. Through an online survey, Chilean young adults (CL) (n=45) and German young adults (DE) (n=45) from the general population were surveyed about their emotional expressivity (BEQ), inclusion of the other in the self (IOS), emotional bodily experience (EBEQ), and eating disorders (EDEQ6).

Results. There were no significant differences in BEQ and IOS (cultural variables) between CL and DE. Chileans pay significantly more attention to bodily signals of basic emotions than Germans, and Germans usually pay significantly more attention to their bodies and to the environment than Chileans. Attention to bodily signals of negative emotions was significantly correlated with eating disorder (ED) symptoms, and this correlation was significantly moderated by culture, remaining significant for Chileans but not for Germans. For Germans, usual attention to the body was significantly correlated with EDs. **Discussion.** The results show that Germans and Chileans experience their bodies differently, and EDs seem to follow, rather than break from, cultural norms. CL and DE did not differ in the variables regarded as ‘cultural variables’.

Keywords: Attentional focus on the body, eating disorder symptoms, cultural patterns of emotional bodily experience.

Although it is well known that the development of an eating disorder is a complex and multifactorial process, most studies that explore the influence of sociocultural factors on ED etiology are focused mainly on the impact of cultural values, such as the pressure to be thin and thin body ideals within groups of individuals who immigrate to Western countries from non-Western countries. Different findings reveal complex scenarios, and one may question whether the acculturation process itself could account for the emergence of EDs in at-risk populations given the high levels of stress, both individual and familiar, that migration entails irrespective of the culture of origin and the host culture, Western or Eastern (Barry & Garner, 2001; Cummins, Simmons, & Zane, 2005; Marsella, Shizuru, Brennan, & Kameoka, 1981; Pate, Pumariega, Hester, & Garner, 1992). In fact, some authors argue that the increasingly global prevalence of EDs can be entirely explained by the rapid socio-cultural transformation processes that most countries are experiencing (Pate et al., 1992).

Thus, it seems reasonable to heed Barry and Garner (2001) recommendation to assess specific cultural aspects and psychologically relevant aspects rather than global constructs such as Westernization in exploring disordered eating concerns in cross-cultural studies. The present study is conducted at this level of analysis, as it aims to compare specific cultural and psychological variables related to specific psychopathological variables. That is, this study explores how Chileans and Germans experience their bodies in relation to cultural variables and ED symptoms.

Consistent with Cohen and Leung (2009), this study assumes that humans ‘literally’ carry their culture through the ways in which they move and comport their bodies. Thus, through different cultural practices, individuals acquire an embodied knowledge that is likely expressed both through adaptive and maladaptive forms of *emotional bodily experience* (M. I. Gaete & Fuchs, in press).

In accordance with Cohen, Leung, and Ijzerman (2009), this study also assumes that members of a culture may be more practiced in and sensitized to certain internal states. Likewise, this embodied knowledge may be an aspect of culturally shaped forms of emotional regulation through different bodily ‘uses’ or ‘practices’.

As Zucker and Harshaw (2012) recently suggested, attentional rigidity plays a role in emotional regulation and in ED symptoms. Considering that attentional focus on the body is an inherent aspect of bodily awareness, it seems reasonable to implicate such a focus in both the bodily resonance of emotions (T. Fuchs, 2013; T. Fuchs & Koch, 2014; M. I. Gaete & Fuchs, in press) and emotional regulation mechanisms.

Furthermore, emotional regulation has been considered a culture variable because culture is believed to play a role in how those regulating mechanisms develop (Miyake, Campos, Kagan, & Bradshaw, 1986).

The present study is based on the notion of *emotional bodily experience* and aims to contribute to the comprehension of the role of culture in attention to bodily signals of emotions and the expression of ED psychopathology. *Emotional bodily experience* (M. I. Gaete & Fuchs, in press) comprises attentional movement from inside to outside of the experiential forecast. Hence, the environment calls for attention and triggers emotions, with bodily resonance as the medium through which adaptive responses are displayed. However, the question of how this interdependent process between emotional bodily resonance and environment affective stimuli is shaped by culture and affected by psychopathology remains unanswered.

Because of the exploratory nature of the present study, no hypotheses have been formulated.

Methods

Participants and Procedures

Through an online survey (Surveygizmo, 2010), a set of self-reported questionnaires was applied to a sample of 491 young Chilean adults from a non-clinical population. Participants were recruited through authorized databases of mailing lists of undergraduate and post-graduate students of the Faculties of Medicine and Psychology of the University of Chile and the Pontifical Catholic University of Chile. From this sample, a sub-sample was obtained for cross-cultural comparison. The same online survey was applied to a German sample of 50 individuals; 5 of these participants were excluded from the analysis because they were residents of Germany but were not born in Germany. Once participants logged on to the website, they were presented with the informed consent form. Participants were required to sign this agreement before they began answering the survey. The present study is part of a broader research project that has been approved by the Ethical Committee for Research on Humans Beings from the Medicine Faculty of the University of Chile.

To ensure that that results are attributable to cultural differences, a key procedure was the matching of Germans and Chileans on sociodemographic variables. Using the R programming language (R Core Team, 2014), an iterative process was performed to identify the Chilean subjects who were most similar to the German subjects in terms of sociodemographic variables to obtain a corresponding sub-sample of 45 young Chilean adults. The Chilean and German samples have the same proportion of women, $n=28$ (62.2%), and men, $n=17$ (37.8%). Likewise, independent-samples t -test was applied to compare the sociodemographic characteristics of the two samples, and no significant mean differences were found between CL and DE in terms of their mean age (CL=26.7 years, $SD=6.10$, and DE=28.07 years, $SD=6.24$), standardized net equivalent income

(CL=2192.66, *SD*=1639.75, and DE=2231.60, *SD*=1555.08), and years of formal education (CL=17.62, *SD*=3.13, and DE=17.0, *SD*=3.30).

Measurements

Eating Disorders Examinations Questionnaire (EDEQ) (C. Fairburn, & Beglin, S., 1994). This measure is a 38-item self-report questionnaire that assesses attitudes, feelings and behaviors related to eating and body image over the past 28 days. Cronbach's alpha for the present study was .89.

Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). This measure is a 20-item scale for screening depressive symptoms (DEP-S) in the general population. The observed Cronbach's alpha was .85.

Emotional Bodily Experience Questionnaire (EBEQ). ((M. I. Gaete, De la Parra, G., Pereira, X., Armijo, I., Carrasco, J., Vaccarezza, S., Volante, E., Pumarino, D., 2015). This measure is a 27-item self-report questionnaire that assess *emotional bodily experiences* multi-dimensionally and cross-situationally. It comprises 6 scales, among which attentional focus on the body while experiencing *basic emotions* (ABEM) was used for the present study. The observed Cronbach's alpha for ABEM was .82. ABEM was assessed on a Likert scale ranging from 0 (none) to 5 (too much). The 'too much' option was intentionally added to capture the experience of attending to the body 'too much', with the assumption that persons who mark this choice consider that their attendance to their body is over their own limits. The present study also considered the initial question of EBEQ about *usual levels of attention to the body and to the environment*.

Berkeley Expressivity Questionnaire (BEQ) (Gross & John, 1995). This questionnaire consists of 16 items that measure three facets of emotional expressivity:

impulse strength (IS), negative expressivity (NE), and positive expressivity (PE). The observed Cronbach's alpha was .70 for IS, .71 for NE, and .73 for PE.

Inclusion of Other in the Self Scale (IOS adapted version) (Li, 2002). This scale consists of four questions that ask respondents to select, among seven diagrams with circles of the same size (ranging from '1' completely separated to '7' completely overlapped), the diagram that best represents their relationship with their closest friend and their closest family member. Respondents are also given the opportunity to draw their own diagram if none of the proposed diagrams represent their relationship. This version developed by Li, H. Z. was re-adapted to accomplish the aims of the present study. Thus, only 2 of the 4 questions were included in this study: one question about the diagram that best represents the respondent's proximity to his/her closest family member (IOS-family) and the other about the respondent's proximity to his/her closest friend (IOS-friend). Finally, the 'free drawing' option was excluded.

Data Analysis

Calculation of equivalent net income. To compare the income variables derived from Chile and Germany, in a first step, the net income of the entire household was standardized with the number of persons belonging to the household. The resulting value corresponds to the *equivalent net income* of the respondent. To allow comparisons between Chilean and German households, the Chilean and Euro currencies needed to be standardized relative to their PPP compared to the International Dollar (United Nations Statistics Division, 2012). Then, the net equivalent income was calculated by dividing the new standardized category midpoints by the square root of the number of persons in the household.

Data analysis for cross-cultural comparison. Independent samples *t*-test was first applied to explore cross-cultural differences in the main variables of the study. Furthermore, the association between the main variables for each country was explored using product-moment Pearson's correlation coefficients. Finally, the role of culture in the significant correlations was tested by assessing the moderation effect of culture using the *PROCESS* statistical tool (Hayes, 2012).

Results

There were no significant differences between CL's ($M=1.51$, $SD=1.43$) and DE's ($M=1.20$, $SD=0.93$) mean scores on ED symptoms (EDEQ), $t(65.51) = 1.23$, $p=.22$. Likewise, in regard to the cultural variables, no significant differences were found between CL and DE samples (see table 1).

Table N° 1

Mean differences on Cultural Variables between Chilean and German samples.

Measures	Chileans (n= 45)	Germans (n= 45)	Independent samples <i>t</i> -test
	M (SD)	M (SD)	
IOS*, closer friend	3.85 (1.62)	4.11 (1.50)	$t(77) = -.738$, $p = .463$
IOS*, closer family member	3.65 (1.51)	3.64 (1.21)	$t(77) = .01$, $p = .993$
BEQ** Positive expressivity	5.54 (1.01)	5.35 (1.00)	$t(75) = .781$, $p = .437$
BEQ** Negative expressivity	4.25 (1.13)	3.90 (1.10)	$t(75) = 1.35$, $p = .181$
BEQ** Impulse Strength	4.74 (1.20)	4.95 (1.00)	$t(75) = -.881$, $p = .381$
BEQ** Global Score	4.85 (0.91)	4.73 (0.77)	$t(73) = .628$, $p = .532$

*Notes: *IOS, Inclusion of Other in the Self Scale. **BEQ, Berkeley Expressivity Questionnaire.*

In regards to the usual levels of attention to the body, a significant difference was found between the means of CL ($M=1.16$, $SD=1.09$) and DE ($M=1.96$, $SD=1.09$), t

(88) = -3.50, $p=.001$. There was also a significant difference in the mean *usual levels of attention to the environment*, CL (M=1.78, SD=1.20) and DE (M=2.84, SD=.95), $t(83.57) = -4.66, p = .000$. Thus, Germans pay significantly more *usual* attention to both their bodies and the environment than do Chileans.

Regarding attentional focus on bodily signals of basic emotions, significant differences in the means were found between CL and DE (see table 2), showing Chileans' general tendency to pay more attention to their bodily signals of basic emotions than Germans.

Table N° 2

Mean differences on attention to bodily signals of basic emotions between Chilean and German samples.

Attention to bodily signals of:	Chileans (n= 45) M (SD)	Germans (n= 45) M (SD)	Independent samples t-test
Joyfulness	2.58 (1.50)	1.89 (1.35)	$t(88) = 2.31, p = .023^*$
Sadness	3.0 (1.52)	2.89 (1.54)	$t(88) = .344, p = .732$
Rage	2.76 (1.60)	1.91 (1.50)	$t(88) = 2.61, p = .011^*$
Disgust	3.47 (1.55)	2.71 (1.80)	$t(88) = 2.14, p = .035^*$
Surprise	2.31 (1.40)	1.18 (1.32)	$t(88) = 4.01, p = .000^{**}$
Fear	3.33 (1.45)	2.50 (1.82)	$t(88) = 2.44, p = .017^*$
Basic Emotions Global Score	2.91 (1.1)	2.20 (1.1)	$t(88) = 3.20, p = .002^{**}$
Negative Emotions	3.14 (1.2)	2.50 (1.3)	$t(88) = 2.45, p = .016^*$

* $p<0.05$

** $p<0.01$

The association between ED symptoms and emotional bodily experiences showed different patterns for CL and DE. For Chileans, but not Germans, ED symptoms (EDEQ) were significantly correlated with attention to bodily signals of rage, sadness and fear (ABrsf) ($r=.438, p=.005$). For Germans, but not Chileans, EDEQ scores were significantly correlated with *usual levels of attention to the body* ($r=.301, p=.044$). Only

the association between EDEQ global scores and ABrsf showed a significant interaction with culture, which played a moderating role, $b = -.43$, 95% CI $[-.85, -.01]$, $t = .49$, $p = .045$ (see figure 1).

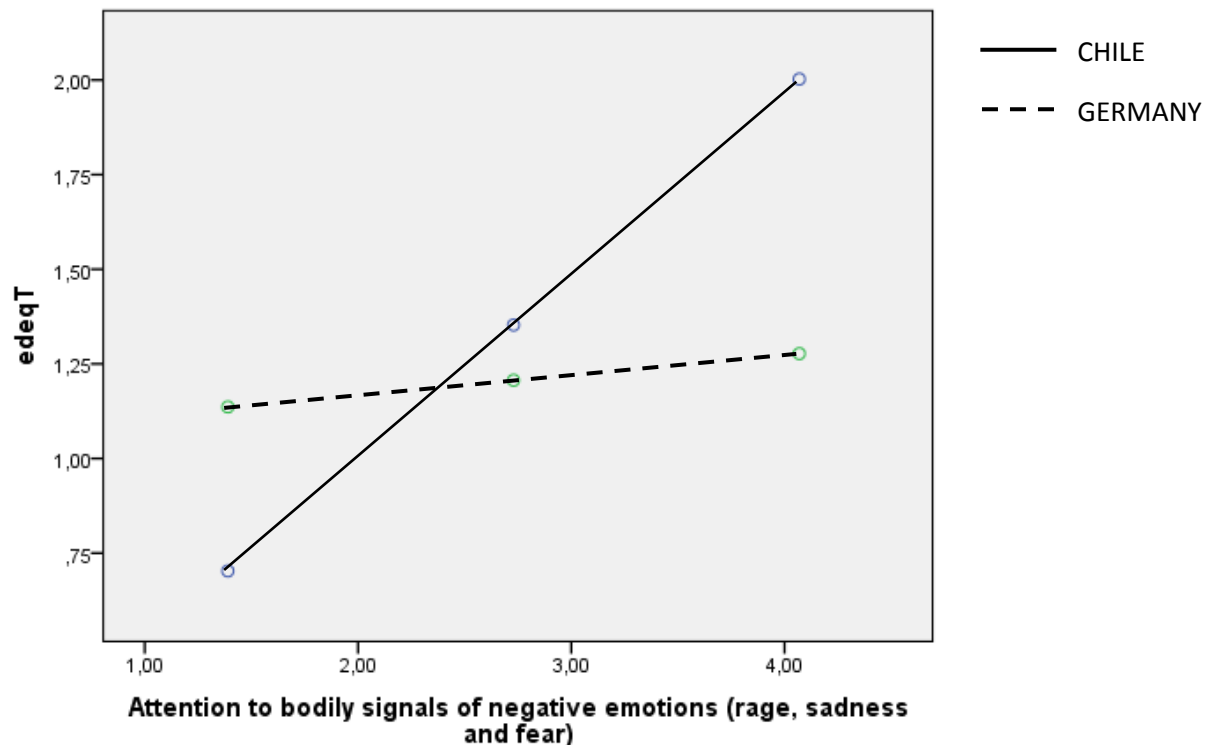


Figure 1. Moderating role of culture in the association between attention to bodily signals of negative emotions and eating disorder symptoms.

Regarding the associations between emotional bodily experience, ED symptoms and ‘cultural variables’, only Chileans showed significant associations between ABEM and IOS-family member (a significant negative correlation was found), $r = -.341$, $p = .049$, and between ABEM and BEQ-positive expressivity, $r = .487$, $p = .004$. No associations between cultural variables and ED symptoms were found.

Discussion

The results showed significant differences in Chileans' and Germans' emotional bodily experience, with CL paying more attention to bodily signals of basic emotions than Germans and Germans usually paying more attention to both the body and the environment than Chileans. Regarding the associations between EBEQ and ED psychopathology by country, for CL, attention to bodily signals of rage, sadness and fear (negative emotions) was significantly associated with ED symptoms. Thus, ED psychopathology in Chile seems to be associated with a heightened attentional focus on bodily signals of negative emotions. For Germans, ED symptoms were significantly associated with *usual levels of attention to the body*. However, culture appears to significantly moderate the association between ABRsf and EDs symptoms, which showed a significant positive correlation for Chileans but not for Germans.

Unexpectedly, variables that were thought to assess cultural expressions did not show any difference between CL and DE. This result can be explained by the rigorous matching procedures, which likely led to quite homogeneous samples, as the two samples were both well educated, did not significantly differ in income or age, and had the same proportions of women and men. Thus, one could assume that greater intra-cultural differences would be found between individuals at different socioeconomic levels than between Chilean and German as homogeneous samples. Furthermore, one could consider that globalization also plays a role in these results. Considering the notion of *self-construal*, and descriptions that assign independent versus interdependent self-construal cultures (Hofstede & Bond, 1984; Markus & Kitayama, 1991; Singelis, 1994), traditional cross-cultural studies could expect that individuals from Chile, a Latin American developing country, would show greater proximity to family members and friends than people from Germany. However, the findings showed that respondents

from the two countries reported very similar levels of proximity to family members and friends. In addition, the results showing a significant negative association between proximity to a family member and attention to bodily signals of basic emotions (both positive and negative emotions) among CL seem intriguing. This finding could be understood by assuming that emotional expressivity is part of the necessary adaptive mechanisms underlying community living, with family coexistence leading to the need for regulation to protect harmony and stability. Therefore, the attentional focus on bodily signals of basic emotions could be experienced as a threat such that individuals who report that they are closer to family members are less self/bodily-focused than individuals who report more distance from family members. However, the significant positive association between emotional attention to bodily signals of basic emotions and BEQ-positive expressivity negates the notion that such attention could threaten family harmony.

The sample sizes of the present study are not large enough to enable more definitive conclusions. Furthermore, the ability to extend these results to clinical populations is limited because both the Chilean and German participants were from the general population only. The results show that ED psychopathology in the two cultures is expressed through different emotional bodily experience patterns. Likewise, one could posit that the so-called *culture norm hypothesis* (Chentsova-Dutton et al., 2007) does not apply to ED symptoms, at least in the comparison of CL and DE, while ED symptoms follow the same general trend observed within each country. Further research comparing clinical with non-clinical samples could shed light onto this matter.

Finally, seems necessary to highlight that 'country' is not equivalent to 'culture' what leads to look at these results with caution considering that 'culture' variables did not show differences between both countries. Therefore, the differences found in the present

study are lacking of cultural variables capable of explaining them. Thus, emotional bodily experience shows different patterns of association with eating disorders between Chile and Germany, but the reasons why are yet to be determined.

References

- Barry, D. T., & Garner, D. M. (2001). Eating concerns in East Asian immigrants: Relationships between acculturation, self-construal, ethnic identity, gender, psychological functioning and eating concerns. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, 6(2), 90-98.
- Cohen, D., & Leung, A. K. Y. (2009). The hard embodiment of culture. *European Journal of Social Psychology*, 39(7), 1278-1289.
- Cohen, D., Leung, A. K. Y., & Ijzerman, H. (2009). Culture, psyche, and body make each other up. *European Journal of Social Psychology*, 39(7), 1298-1299.
- Cummins, L. H., Simmons, A. M., & Zane, N. W. (2005). Eating disorders in Asian populations: A critique of current approaches to the study of culture, ethnicity, and eating disorders. *American Journal of Orthopsychiatry*, 75(4), 553-574.
- Chentsova-Dutton, Y. E., Chu, J. P., Tsai, J. L., Rottenberg, J., Gross, J. J., & Gotlib, I. H. (2007). Depression and emotional reactivity: variation among Asian Americans of East Asian descent and European Americans. *J Abnorm Psychol*, 116(4), 776.
- Fairburn, C., & Beglin, S. (1994). Assessment of eating disorder psychopathology: interview or self-report questionnaire? *Int J Eat Disord*, 16, 363-370.
- Fuchs, T. (2013). The phenomenology of affectivity. In M. D. K. W. M. Fulford, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini & T. Thornton (Ed.), *Handbook of the Philosophy of Psychiatry*. (pp. 612-631). Oxford: Oxford University Press.
- Fuchs, T., & Koch, S. (2014). Embodied Affectivity: on moving and being moved. *Frontiers in Psychology*, 5, 1-12. doi:doi: 10.3389/fpsyg.2014.00508

- Gaete, M. I., De la Parra, G., Pereira, X., Armijo, I., Carrasco, J., Vaccarezza, S., Volante, E., Pumarino, D. . (2015). Emotional Bodily Experience Questionnaire: Development and Psychometric Properties. *Submitted*.
- Gaete, M. I., & Fuchs, T. (in press). From Body Image to Emotional Bodily Experience in Eating Disorders. *Journal of Phenomenological Psychology, in press*.
- Gross, J. J., & John, O. P. (1995). Facets of emotional expressivity: Three self-report factors and their correlates. *Personality and individual differences, 19*(4), 555-568.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.
- Hofstede, G., & Bond, M. H. (1984). Hofstede's culture dimensions an independent validation using rokeach's value survey. *Journal of Cross-Cultural Psychology, 15*(4), 417-433.
- Li, H. Z. (2002). Culture, gender and self-close-other (s) connectedness in Canadian and Chinese samples. *European Journal of Social Psychology, 32*(1), 93-104.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review, 98*(2), 224.
- Marsella, A. J., Shizuru, L., Brennan, J., & Kameoka, V. (1981). Depression and body image satisfaction. *Journal of Cross-Cultural Psychology, 12*(3), 360-371.
- Miyake, K., Campos, J. J., Kagan, J., & Bradshaw, D. L. (1986). *Issues in socioemotional development*. New York, NY, US: WH Freeman/Times Books/ Henry Holt & Co.
- Pate, J. E., Pumariega, A. J., Hester, C., & Garner, D. M. (1992). Cross-cultural patterns in eating disorders: A review. *Journal of the American Academy of Child & Adolescent Psychiatry, 31*(5), 802-809.

- R Core Team. (2014). Vienna, Austria Patent No.: T. R. F. f. S. Computing.
- Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. . *Applied Psychological Measurement, 1*, 385-401.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin, 20*(5), 580-591.
- Surveygizmo. (2010). Surveygizmo. Retrieved from Available:
www.surveygizmo.com
- United Nations Statistics Division, U. (2012). UNDATA – a data access system to UN databases. Retrieved from <http://dta.un.org/>. <http://dta.un.org/>
- Zucker, N., & Harshaw, C. (2012). Emotion, Attention, and Relationships: A Developmental Model of Self-Regulation in Anorexia Nervosa and Related Disordered Eating Behaviors. In J. Lock (Ed.), *The Oxford Handbook of Developmental Perspectives on Child and Adolescent Eating Disorders*. (pp. 67-87). London: Oxford Press.

GENERAL CONCLUSION

In regard to the development of a comprehensive model of emotional bodily experience (EBE), being the inspiration to carry out this thesis, it will be discuss here about the process both from the theoretical, methodological, and empirical points of view.

From the theoretical view, the application of phenomenology both as a general theoretical frame, and a method of analysis of phenomena was a first foundational step that allowed the whole process to not get lost from the necessary proximity with the object of study. Therefore, the theoretical definition of EBE keeps safe the vividness of what it is supposed to express.

Likewise, the notion of implicit and explicit dimensions of emotional bodily experience seems helpful in distinguishing between what can be also thought as passive (pre-reflective) and active (reflective) bodily awareness that are expressed both through a first person position of the lived body: ‘just enjoying dancing with a partner’, and through the body as an ‘object’ of attention: ‘the harmful sensation on *my* feet because of *my* new shoes’ (note that italics are remarking the very idea of ‘objects’). By its part the affective-emotive aspect of emotional bodily experience seems also useful in regard to its bodily resonance which represents interoceptive sensitivity and interoceptive awareness of the internal signs of emotions. This three concepts which take part of the definition of emotional bodily experience were used for its operationalization into emotional bodily experience questionnaire (EBEQ). The narrative and functional dimensions were excluded from the operationalization for considering that, in spite of their relevance to the EBE construct, they probably would require a different way of measuring them. Thus, this theoretical frame was reported in the theoretical article

presented at the first part of this dissertation, which was accepted for publication staying at the moment on 'in press' status.

In regard to the methodological decision making process that the present dissertation required, there are some reflections that seem relevant to discuss. First, the decision of developing a new measurement for accomplishing with the aim of approaching EBE in a way that clinically useful distinctions can be made; was crucial for the pathways that the complete research process further entailed. The overall research process was organized towards rising up this new variable by a new measurement.

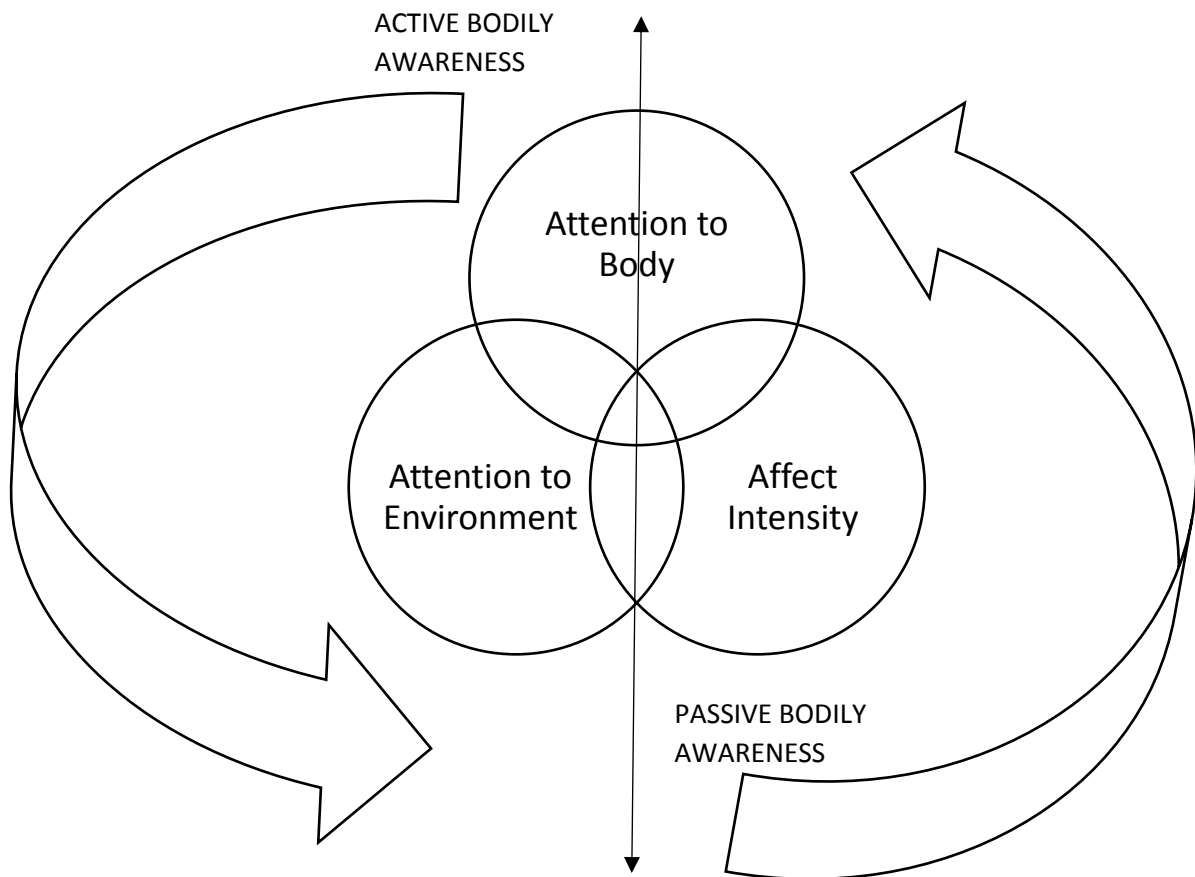
Otherwise, the iterative decision making process that the development of the EBEQ comprised, allowed to keep a continuous dialogue between theory and method regarding the coherence and consistency of the emerging results which, in turn, participated on this theory-method's dialogue too. By this means, the final theoretical structure of EBEQ was carefully shaped.

The use of qualitative techniques for refining the theoretical definition of EBE with the aim of getting a 'working definition' that could be easy to turn into items, was another relevant methodological decision that has been made. By this means, the pilot applications and the expert judge assessments allowed a fruitful refinement process of items and scales (both in form and content).

In regard to the empirical view, the present investigation leads to results that were organized in the three empirical articles already presented here: the first one reporting the development and validation of the EBEQ, the second reporting significant associations between EBEQ, depressivity, and eating disorders, and the third one showing results of cross-cultural comparison of EBEQ, eating disorder symptoms, along with emotional expressivity, self-others connectedness cultural variables.

A schematic overview that intends to give to the readers with a summary guide on understanding what these results are talking about is presented at figure 1, which shows the *three-dimensional model of emotional bodily experience questionnaire* (EBEQ). This model is aimed at representing the dynamic interdependence of attention to body (AB), attention to environment (AE), and affect intensity (AI). This three-dimensional model could be thought as accounting for the dynamic movements between an *active bodily awareness* (body as an *object* of attention) and a *passive bodily awareness* (*first person position* of the lived body). This dynamic can be expressed by the sense of wellbeing versus the sense of discomfort (as it was illustrated with the example of enjoying dancing versus suffering a painful sensation on your feet because of a new pair of shoes). EBE seems to be moving from focusing the attention on the body to focusing the attention on the environment. Likewise, both attending to the body and to the environment is always accompanied by an affect intensity which could be thought as the driving force that keeps the movement on. This can be seen at the dancer example as the harmful sensation (affect state) as triggering the movement from attending to the environment, enjoying of making eye contact with your partner or listening to the music, to focus your attention to your feet and stop dancing, maybe taking of your shoes for obtaining relief. This model makes clear that the two dimensions that were included for the operationalization of EBE, *implicit and explicit dimensions*, were turned into the three dimensions of the questionnaire.

Figure 1. THREE-DIMENSIONAL MODEL OF EMOTIONAL BODILY EXPERIENCE QUESTIONNAIRE (EBEQ)



Going back to the discussion of the results, first can be seen at figure 1 an illustrative comprehension of convergent validity between the three dimensions of EBEQ and bodily awareness scale of SBC (BA-SBC). Bodily awareness appears always implicated in EBE by moving from an *active mode* to a *passive mode*.

Thus, if we think about results showing patients paying significantly more *usual* attention to their bodies, and significantly more attention to their bodily feelings of negative emotions compared to non-clinical sample; then we can also think these results

as a rigid fixation on attentional focus on the body for eating disordered patients as a form of active bodily awareness that takes to the background the environment requirements. Of course, results are showing again giving empirical support to the *embodied defense hypothesis*.

In regard to discriminant validity for AE and AI dimensions, and using the frame of the three-dimensional model presented above for reflecting about, results showing significantly higher scores on AE at pleasant bodily sensations for the non-clinical group compared to the ED patients group; can be understood as healthy individuals living their pleasant bodily sensations in a first person position by means of a passive awareness of their bodies compared with patients. Likewise, results showing significantly higher overall scores of AI for the non-clinical group, can be understand as healthy individuals living their bodies on a first person position cross-situationally allowing them to have an overall higher bodily resonance of affects by means of an implicit and passive bodily awareness, the body is a resonant body more than a focus of attention. Otherwise, results showing patients group with significantly higher scores of AB and AI at contexts of public exposure compared to non-clinical group, highlights the dynamic of EBE which can be expressed cross-situationally as these results on public exposure scales are showing. Further research could expand these results by searching for distinctions between other different groups of individuals.

These results open the opportunity of embracing emotional bodily experience of somatic expressions of affective disorders and psychopathology, through the notion of bodily resonance as a field of study which could be addressed by combining laboratory settings for assessing the emotional bodily reactions, interoceptive sensitivity, and interoceptive awareness as objective measures of EBE, along with subjective measures in which the EBEQ as a new assessment tool could play an useful role.

Reflections about the implications of these results for psychotherapy can be framed under the increasing evidence about that body-oriented therapies, body awareness techniques and physical exercise have a relieving effect over depressive symptoms. Traditional psychotherapies have been strongly attached to work with words or ‘mental resources’ of patients rather than observing their bodies as speakers of parallel stories that could or could not fit to their own ‘official-verbal’ story. Although, currently it is difficult to find clinicians thinking about mind-body dissociation as a valid way of understanding the experience of human beings, such an “embodied paradigm” on mental health it is not applied yet in the same extend that it seems to be broadly accepted. Furthermore, being consistent with this new paradigm must be somehow expressed on the clinical work. So one could ask about therapists awareness and use of the broad range of bodily metaphors occurring time by time in psychotherapy sessions. By mention some of them the use of *revulsion* referring to a highly disgusting person, or conversely the bodily gesture of a self-containment by crossing their own arms as giving themselves a hug. Then, it is relevant for me to think that the present dissertation is contributing at opening new horizons for the developing of new forms of psychotherapy that can be more ‘inclusive’ of this *embodied* way of understanding the so called ‘mental’ disorders by going far beyond the traditional *talking cure* (Sigmund Freud & Breuer, 1955).

Before going to the final conclusions of the present dissertation, by means of a self-revelation of my musician identity, I would like to reflect and think on psychotherapy framed under the embodied paradigm. I strongly believe on the healing power of Art therapies. In fact, I used to apply the art-therapy technique with patients by means of expressive painting techniques. Further, creative and expressive tools for helping persons in recover an embodied sense of self, in which they can look at them by means

of a quite different way from what they are used to be seen (both by the gaze of themselves and the gaze of others), a form that playfully invite them to live their bodies in a first person position, by taking them out of the objectification in which they are used to live their bodies (sometimes dramatically as the case of eating disorders), as well as they use to be treated. Patients, as owners of their bodies acting over the world creatively is thought to be a concrete way of repairing the sense of being in the world that could be used in psychotherapy adding the lyrics of the history through this creative process. So bodily oriented therapies, including art-therapy, music-therapy, along with yoga and mindful techniques seem to be opening a wide door that invites both clinicians and researcher to get in.

Finally, regarding the cross-cultural part of this dissertation, results showing *no differences* on 'cultural variables' between German and Chilean groups on emotional expressivity and self-others connectedness call for attention at the globalization processes, and the fast developing process that Chile has been suffering during last decades (Ffrench-Davis, 2003). Thus, it seems reasonable to think that there would be more intra-cultural differences both in Germany (regarding immigration processes) and in Chile (regarding the dramatic inequality that the developing process has stressed in this country); than between such a well matched Chilean-German samples (the socio-demographic matching process is explained in detail at procedures of the article reported above).

Otherwise, looking at cross-cultural *differences* on EBEQ, results showing Germans paying significantly higher *usual* attention both to their bodies and to the environment than Chileans; can be understood as showing a *balanced pattern of emotional bodily experience*. Going back to the three-dimensional model of EBEQ one could think that German's pattern expressed a balance between active and passive bodily awareness.

Chileans for their part showed a *non-balanced emotive pattern of emotional bodily experience* expressed by the significantly higher attention to bodily signs of basic emotions that results are showing. This *non-balanced emotive pattern* can be understood as Chilean being actively aware of their emotional bodily resonance, which can be accounted for the traditional Latin-American stereotype (Osland & Bird, 2000) about emotional expressivity and its bodily expression through folk-dances, the higher volume of their voices, the expressive style of their clothes, etc.

In regards to the *embodied defense*, which showed support with data only for Chileans, seems reasonable if a non-clinical group of Germans showed a *balanced pattern* of EBEQ, it would not be easy to approach how EBE actually performs at eating disorders symptoms by testing it within a non-clinical group of individuals only. So this is one of the limitations of this study that warning us of not taking this as definitive. Also the sample size can also be an important limitation in order to look for associations of variables between which there is one that certainly will be under-represented as the clinical variables are here. By their part, Chileans showing significant associations between attention to bodily signals of negative emotions and eating disorders can be reflecting that the higher attention to body when feeling negative emotions, as part of their general emotive pattern, would be following rather than breaking the cultural trend.

REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual-text revision (DSM-IV-TRim, 2000)*: American Psychiatric Association.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. . Arlington, VA: American Psychiatric Association.
- Anderson, R. (2006). Body intelligence scale: Defining and measuring the intelligence of the body. *The Humanistic Psychologist*, 34(4), 357-367.
- Atwood, G. E. S., R.D. (1984). *Structures of Subjectivity. Explorations in psychoanalytic phenomenology and contextualism*. London, New York: Routledge.
- Barry, D. T., & Garner, D. M. (2001). Eating concerns in East Asian immigrants: Relationships between acculturation, self-construal, ethnic identity, gender, psychological functioning and eating concerns. *Eating and Weight Disorders- Studies on Anorexia, Bulimia and Obesity*, 6(2), 90-98.
- Barsky, A. J., & Wyshak, G. (1990). Hypochondriasis and somatosensory amplification. *The British Journal of Psychiatry*, 157(3), 404-409.
- Barsky, A. J., Wyshak, G., & Klerman, G. L. (1990). The somatosensory amplification scale and its relationship to hypochondriasis. *Journal of psychiatric research*, 24(4), 323-334.
- Bateman, A., & Fonagy, P. (2006). *Mentalization-based treatment for borderline personality disorder: A practical guide*: OUP Oxford.
- Beato-Fernández, L., Rodríguez-Cano, T., García-Vilches, I., García-Vicente, A., Poblete-García, V., Castrejon, A. S., & Toro, J. (2009). Changes in regional cerebral blood flow after body image exposure in eating disorders. *Psychiatry Research: Neuroimaging*, 171(2), 129-137.

- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.
- Behnke, E. A. (1997). Ghost gestures: Phenomenological investigations of bodily micromovements and their intercorporeal implications. *Human Studies*, 20(2), 181-201.
- Bekker, M. H., Croon, M. A., van Balkom, E. G., & Vermeë, J. B. (2008). Predicting individual differences in autonomy-connectedness: the role of body awareness, alexithymia, and assertiveness. *J Clin Psychol*, 64(6), 747-765.
doi:10.1002/jclp.20486
- Bogaerts, K., Millen, A., Li, W., De Peuter, S., Van Diest, I., Vlemincx, E., . . . Van den Bergh, O. (2008). High symptom reporters are less interoceptively accurate in a symptom-related context. *J Psychosom Res*, 65(5), 417-424.
doi:10.1016/j.jpsychores.2008.03.019
- Bogaerts, K., Van Eylen, L., Li, W., Bresseleers, J., Van Diest, I., De Peuter, S., . . . Van den Bergh, O. (2010). Distorted symptom perception in patients with medically unexplained symptoms. *J Abnorm Psychol*, 119(1), 226-234.
doi:10.1037/a0017780
- Borkenhagen, A., Klapp, B. F., Brähler, E., & Schoeneich, F. (2008). Differences in the Psychic Representation of the Body in Bulimic and Anorexic Patients: A Study with the Body Grid. *Journal of Constructivist Psychology*, 21(1), 60-81.
doi:10.1080/10720530701734372
- Broccoli, T. L. (2008). *Relationship between Self and Physical Body: An Examination of the Phenomenon of Disconnect*. (Doctor of Philosophy Graduate Program in Psychology), The State University of New Jersey, New Brunswick, New Jersey.

- Bromberg, P. M. (2001). Treating patients with symptoms—and symptoms with patience: Reflections on shame, dissociation, and eating disorders. *Psychoanalytic Dialogues*, *11*(6), 891-912.
- Brown, T. A., Cash, T. F., & Mikulka, P. J. (1990). Attitudinal body-image assessment: factor analysis of the Body-Self Relations Questionnaire. *J Pers Assess*, *55*(1-2), 135-144. doi:10.1080/00223891.1990.9674053
- Bruch, H. (1971). *Eating disorders: Obesity, anorexia nervosa and the person within*. New York: Basic Books.
- Bydlowski, S., Corcos, M., Jeammet, P., Paterniti, S., Berthoz, S., Laurier, C., . . . Consoli, S. M. (2005). Emotion-processing deficits in eating disorders. *International journal of eating disorders*, *37*(4), 321-329.
- Cameron, O. G. (2001). Interoception: The Inside Story—A Model for Psychosomatic Processes. *Psychosomatic Medicine*, *63*, 697-710.
- Cameron, O. G. (2002). *Visceral Sensory Neuroscience. Interoception*. Oxford: Oxford University Press.
- Carr, D. (1986). *Time, narrative, and history*: Cambridge Univ Press.
- Cash, T. F., & Deagle, E. A. (1997). The nature and extent of body-image disturbances in anorexia nervosa and bulimia nervosa: A meta-analysis. *International journal of eating disorders*, *22*(2), 107-126.
- Cash, T. F., Phillips, K. A., Santos, M. T., & Hrabosky, J. I. (2004). Measuring “negative body image”: validation of the Body Image Disturbance Questionnaire in a nonclinical population. *Body image*, *1*(4), 363-372.
- Cash, T. F., & Pruzinsky, T. (2002). *Body Image. A Handbook of Theory, Research & Clinical Practice*. New York, NY: Guilford Press.

- Cash, T. F., & Pruzinsky, T. E. (1990). *Body images: Development, deviance, and change*: Guilford Press.
- Cioffi, D. (1991a). Beyond Attentional Strategies: A Cognitive-Perceptual Model of Somatic Interpretation. *Psychological Bulletin*, *109*(1), 25-41.
- Cioffi, D. (1991b). Sensory awareness versus sensory impression: Affect and attention interact to produce somatic meaning. *Cognition and Emotion*, *5*(4), 275-294.
doi:10.1080/02699939108411041
- Cohen, D., & Leung, A. K. Y. (2009). The hard embodiment of culture. *European Journal of Social Psychology*, *39*(7), 1278-1289.
- Cohen, D., Leung, A. K. Y., & Ijzerman, H. (2009). Culture, psyche, and body make each other up. *European Journal of Social Psychology*, *39*(7), 1298-1299.
- Cordero, C. (1999). Chile Patent No. Centro de Integración Cognitivo Corporal. © 2015: ICC.
- Cummins, L. H., Simmons, A. M., & Zane, N. W. (2005). Eating disorders in Asian populations: A critique of current approaches to the study of culture, ethnicity, and eating disorders. *American Journal of Orthopsychiatry*, *75*(4), 553-574.
- Chentsova-Dutton, Y. E., Chu, J. P., Tsai, J. L., Rottenberg, J., Gross, J. J., & Gotlib, I. H. (2007). Depression and emotional reactivity: variation among Asian Americans of East Asian descent and European Americans. *J Abnorm Psychol*, *116*(4), 776.
- Damasio, A. (2008). *Descartes' error: Emotion, reason and the human brain*: Random House.
- De Berardis, D., Campanella, D., Gambi, F., La Rovere, R., Sepede, G., Core, L., . . . Ferro, F. M. (2007). Alexithymia, fear of bodily sensations, and somatosensory

- amplification in young outpatients with panic disorder. *Psychosomatics*, 48(3), 239-246. doi:10.1176/appi.psy.48.3.239
- De Sousa, R. (2010). *Emotion*: Stanford.
- Delinsky, S. S., & Wilson, G. T. (2006). Mirror exposure for the treatment of body image disturbance. *International journal of eating disorders*, 39(2), 108-116.
- Derogatis, L. R. (1975). Brief Symptom Inventory. *Baltimore: Clinical Psychometric Research*.
- Derogatis, L. R. M., N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, 13, 595-605.
- Ekman, P. (1999). Facial expressions. *Handbook of cognition and emotion*, 16, 301-320.
- Ekman, P. E., & Davidson, R. J. (1994). *The nature of emotion: Fundamental questions*: Oxford University Press.
- Eshkevari, E., Rieger, E., Musiat, P., & Treasure, J. (2014). An Investigation of Interoceptive Sensitivity in Eating Disorders Using a Heartbeat Detection Task and a Self-report Measure. *European Eating Disorders Review*, 22(5), 383-388.
- Fairburn, C., & Beglin, S. (1994). Assessment of eating disorder psychopathology: interview or self-report questionnaire? *Int J Eat Disord*, 16, 363-370.
- Fairburn, C. G. (2008). *Cognitive behavior therapy and eating disorders*: Guilford Press.
- Farrell, C., Shafran, R., & Lee, M. (2006). Empirically evaluated treatments for body image disturbance: A review. *European Eating Disorders Review*, 14(5), 289-300.

- Ferrer-García, M., & Gutiérrez-Maldonado, J. (2012). The use of virtual reality in the study, assessment, and treatment of body image in eating disorders and nonclinical samples: a review of the literature. *Body image*, 9(1), 1-11.
- Ffrench-Davis, R. (2003). *Entre el neoliberalismo y el crecimiento con equidad: tres décadas de política económica en Chile*: JC Sáez Editor.
- Fingerhut, J., & Marienberg, S. (2012). *Feelings of being alive* (Vol. 8): Walter de Gruyter.
- Fisher, S., & Cleveland, S. E. (1958). Body image and personality.
- Florenzano, R., Fullerton, C., Acuña, J., & Escalona, R. (2002). Somatización: aspectos teóricos, epidemiológicos y clínicos. *Revista chilena de neuro-psiquiatría*, 40(1), 47-55.
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory. *Psychology of women quarterly*, 21(2), 173-206.
- Freud, S. (1925/1976). *Obras completas Sigmund Freud* (Vol. 19). Buenos Aires: Amorrortu.
- Freud, S., & Breuer, J. (1955). Studies on Hysteria. 1895. *The standard edition of the complete psychological works of Sigmund Freud*, 1953-1974.
- Frijda, N. H. (1986). *The Emotions*. Cambridge: Cambridge University Press.
- Fuchs, T. (2013). The phenomenology of affectivity. In M. D. K. W. M. Fulford, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini & T. Thornton (Ed.), *Handbook of the Philosophy of Psychiatry*. (pp. 612-631). Oxford: Oxford University Press.
- Fuchs, T., & Koch, S. (2014). Embodied Affectivity: on moving and being moved. *Frontiers in Psychology*, 5, 1-12. doi:doi: 10.3389/fpsyg.2014.00508

- Fuchs, T., Sattel, H. C., & Henningsen, P. (2010). *The Embodied Self: Dimensions, Coherence, and Disorders*: Schattauer Verlag.
- Fuchs, T. S., J. . (2009). Embodiment and psychopathology: a phenomenological perspective. *Current Opinion in Psychiatry*, 22(6), 570-575.
doi:doi:10.1097/YCO.0b013e3283318e5c
- Furman, D. J., Waugh, Ch. E., Bhattacharjee, K., Thompson, R. J., H.Gotlib, I. (2013). Interoceptive awareness, positive affect, and decision making in Major Depressive Disorder. *Journal of Affective Disorders*, 151, 780-785.
- Gaete, M. I., De la Parra, G., Pereira, X., Armijo, I., Carrasco, J., Vaccarezza, S., Volante, E., Pumarino, D. . (2015). Emotional Bodily Experience Questionnaire: Development and Psychometric Properties. *Submitted*.
- Gaete, M. I., & Fuchs, T. (in press). From Body Image to Emotional Bodily Experience in Eating Disorders. *Journal of Phenomenological Psychology*, in press.
- Gallagher, S. (2005). *How the body shapes the mind*: Cambridge Univ Press.
- Garner, D. M., & Garfinkel, P. E. (1997). *Handbook of treatment for eating disorders*: Guilford Press.
- Garner, D. M., Olmstead, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International journal of eating disorders*, 2(2), 15-34.
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The eating attitudes test: psychometric features and clinical correlates. *Psychological Medicine*, 12(04), 871-878.
- Gergely, G., Fonagy, P., Jurist, E., & Target, M. (2002). Affect regulation, mentalization, and the development of the self: New York: Other Press. types of psychotherapies and its effects on treatment outcomes.

- Gibson, J. J. (1978). The ecological approach to the visual perception of pictures. *Leonardo*, 227-235.
- Gross, J. J., & John, O. P. (1995). Facets of emotional expressivity: Three self-report factors and their correlates. *Personality and individual differences*, 19(4), 555-568.
- Gureje, O., Simon, G. E., Ustun, T. B., & Goldberg, D. P. (1997). Somatization in cross-cultural perspective: a World Health Organization study in primary care. *American Journal of Psychiatry*, 154(7), 989-995.
- Harrison, K., & Hefner, V. (2006). Media exposure, current and future body ideals, and disordered eating among preadolescent girls: A longitudinal panel study. *Journal of Youth and Adolescence*, 35(2), 146-156.
- Harshaw, C. (2015). Interoceptive Dysfunction: Toward an Integrated Framework for Understanding Somatic and Affective Disturbance in Depression. *Psychological Bulletin*, 141(2), 311-363.
- Hart, N., McGowan, J., Minati, L., & Critchley, H. D. (2013). Emotional regulation and bodily sensation: interoceptive awareness is intact in borderline personality disorder. *Journal of personality disorders*, 27(4), 506-518.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.
- Haynes, S. N., Richard, D., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological assessment*, 7(3), 238.
- Henningsen, P., Zimmermann, T., & Sattel, H. (2003). Medically Unexplained Physical Symptoms, Anxiety, and Depression: A Meta-Analytic Review. *Psychosomatic Medicine*, 65(4), 528-533.

- Herbert, B., & Pollatos, O. . (2012). The Body in the Mind: On the Relationship between Interoception and Embodiment. *Topics in Cognitive Science*, 4(4), 1-13. doi:10.1111/j.1756-8765.2012.01189.x
- Herbert, B. M., Blechert, J., Hautzinger, M., Matthias, E., & Herbert, C. (2013). Intuitive eating is associated with interoceptive sensitivity. Effects on body mass index. *Appetite*, 70, 22-30.
- Herbert, B. M., Herbert, C., Pollatos, O., Weimer, K., Enck, P., Sauer, H., & Zipfel, S. (2012). Effects of short-term food deprivation on interoceptive awareness, feelings and autonomic cardiac activity. *Biological Psychology*, 89(1), 71-79.
- Herbert, B. M., Herbert, C. and Pollatos, O. (2011). On the Relationship Between Interoceptive Awareness and Alexithymia: Is Interoceptive Awareness Related to Emotional Awareness? *Journal of Personality*, 79(5), 1150-1175. doi:10.1111/j.1467-6494.2011.00717.x
- Herbert, B. M., & Pollatos, O. (2014). Attenuated interoceptive sensitivity in overweight and obese individuals. *Eating Behaviors*, 15(3), 445-448.
- Hofstede, G., & Bond, M. H. (1984). Hofstede's culture dimensions an independent validation using rokeach's value survey. *Journal of Cross-Cultural Psychology*, 15(4), 417-433.
- Hollitt, S., Kemps, E., Tiggemann, M., Smeets, E., & Mills, J. S. (2010). Components of attentional bias for food cues among restrained eaters. *Appetite*, 54(2), 309-313.
- Hsu, L., & Sobkiewicz, T. A. (1991). Body image disturbance: Time to abandon the concept for eating disorders? *International journal of eating disorders*, 10(1), 15-30.
- James, W. (1890). *The principles of psychology*. (Vol. 2). New York: Dover.

- Jansen, A., Nederkoorn, C., & Mulkens, S. (2005). Selective visual attention for ugly and beautiful body parts in eating disorders. *Behaviour research and therapy*, *43*(2), 183-196.
- Jansen, A., Smeets, T., Martijn, C., & Nederkoorn, C. (2006). I see what you see: The lack of a self-serving body-image bias in eating disorders. *British Journal of Clinical Psychology*, *45*(1), 123-135.
- Jeppson, J. E., Richards, P. S., Hardman, R. K., & Granley, H. M. (2003). Binge and purge processes in bulimia nervosa: A qualitative investigation. *Eating disorders*, *11*(2), 115-128.
- Johnson, M. (2013). *The body in the mind: The bodily basis of meaning, imagination, and reason*: University of Chicago Press.
- Kirmayer, L. J. (1984). Culture, Affect and Somatization Part I. *Transcultural Psychiatry*, *21*(3), 159-188.
- Kirmayer, L. J., & Groleau, D. (2001). Affective disorders in cultural context. *Psychiatric Clinics of North America*, *24*(3), 465-478.
- Klabunde, M., Acheson, D. T., Boutelle, K. N., Matthews, S. C., & Kaye, W. H. (2013). Interoceptive sensitivity deficits in women recovered from bulimia nervosa. *Eating Behaviors*, *14*(4), 488-492.
- Knauss, C., Paxton, S. J., & Alsaker, F. D. (2008). Body dissatisfaction in adolescent boys and girls: Objectified body consciousness, internalization of the media body ideal and perceived pressure from media. *Sex Roles*, *59*(9-10), 633-643.
- Koch, S. C., Fuchs, T., Summa, M., & Müller, C. (2012). *Body memory, metaphor and movement* (Vol. 84): John Benjamins Publishing.
- Krueger, R. F., Chentsova-Dutton, Y. E., Markon, K. E., Goldberg, D., & Ormel, J. (2003). A cross-cultural study of the structure of comorbidity among common

- psychopathological syndromes in the general health care setting. *J Abnorm Psychol*, 112(3), 437.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*: Basic books.
- Li, H. Z. (2002). Culture, gender and self-close-other (s) connectedness in Canadian and Chinese samples. *European Journal of Social Psychology*, 32(1), 93-104.
- Lichtenberg, J. D. (2001). Motivational systems and model scenes with special references to bodily experience. *Psychoanalytic Inquiry*, 21(3), 430-447.
- Madrid, H. M., Pombo, M., & Otero, A. G. (2001). Evaluación de las actitudes alimentarias y la satisfacción corporal en una muestra de adolescentes. *Psicothema*, 13(4), 539-545.
- Mailloux, J., & Brener, J. (2002). Somatosensory Amplification and Its Relationship to Heartbeat Detection Ability. *Psychosomatic Medicine*, 64, 353-357.
- Marco, J. H., Perpina, C., & Botella, C. (2013). Effectiveness of cognitive behavioral therapy supported by virtual reality in the treatment of body image in eating disorders: one year follow-up. *Psychiatry research*, 209(3), 619-625.
- Marco, J. H., Perpiñá, C., & Botella, C. (2013). Tratamiento de la imagen corporal en los trastornos alimentarios: diferencias en la respuesta al tratamiento según el diagnóstico. *Behavioral Psychology*, 21(3), 491-509.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review*, 98(2), 224.
- Marsella, A. J., Shizuru, L., Brennan, J., & Kameoka, V. (1981). Depression and body image satisfaction. *Journal of Cross-Cultural Psychology*, 12(3), 360-371.

- Mask, L., & Blanchard, C. M. (2011). The effects of “thin ideal” media on women's body image concerns and eating-related intentions: The beneficial role of an autonomous regulation of eating behaviors. *Body image*, 8(4), 357-365.
- Mehling, W. E., Gopisetty, V., Daubenmier, J., Price, C. J., Hecht, F. M., & Stewart, A. (2009). Body awareness: construct and self-report measures. *PLoS One*, 4(5), e5614. doi:10.1371/journal.pone.0005614
- Mehling, W. E., Price, C., Daubenmier, J. J., Acree, M., Bartmess, E., & Stewart, A. (2012). The Multidimensional Assessment of Interoceptive Awareness (MAIA). *PLoS One*, 7(11), e48230. doi:10.1371/journal.pone.0048230
- Merleau-Ponty, M., & Smith, C. (1996). *Phenomenology of perception: Motilal Banarsidass Publishe*.
- Miller, L. C., Murphy, R., & Buss, A. H. (1981). Consciousness of body: Private and public. *Journal of Personality and Social Psychology*, 41(2), 397.
- Miranda Hiriart, G., & Saffie Gatica, X. (2014). Pacientes policonsultantes: ¿ un síntoma del sistema de salud en Chile? *Acta bioethica*, 20(2), 215-223.
- Miyake, K., Campos, J. J., Kagan, J., & Bradshaw, D. L. (1986). *Issues in socioemotional development*. New York, NY, US: WH Freeman/Times Books/ Henry Holt & Co.
- Mizes, J. S., Heffner, M., Madison, J. K., & Varnado-Sullivan, P. (2004). The validity of subjective measures of body image disturbance. *Eating Behaviors*, 5(1), 55-66. doi:10.1016/s1471-0153(03)00056-4
- Olfson, M., & Gameroff, M. J. (2007). Generalized anxiety disorder, somatic pain and health care costs. *General Hospital Psychiatry*, 29(4), 310-316.
- Osland, J. S., & Bird, A. (2000). Beyond sophisticated stereotyping: Cultural sensemaking in context. *The Academy of Management Executive*, 14(1), 65-77.

- Pate, J. E., Pumariega, A. J., Hester, C., & Garner, D. M. (1992). Cross-cultural patterns in eating disorders: A review. *Journal of the American Academy of Child & Adolescent Psychiatry, 31*(5), 802-809.
- Pollatos, O., Dietel, A., Herbert, B. M., Wankner, S., Wachsmuth, C., Henningsen, P., Sack, M. (2011). Blunted autonomic reactivity and increased pain tolerance in somatoform patients. *Pain, 152*, 2157-2164.
- Pollatos, O., Kurz, A.-L., Albrecht, J., Schreder, T., Kleemann, A. M., Schöpf, V., . . . Schandry, R. (2008). Reduced perception of bodily signals in anorexia nervosa. *Eating Behaviors, 9*(4), 381-388.
- Price, C. J., & Thompson, E. A. (2007). Measuring dimensions of body connection: body awareness and bodily dissociation. *J Altern Complement Med, 13*(9), 945-953. doi:10.1089/acm.2007.0537
- Probst, M., Pieters, G., & Vanderlinden, J. (2008). Evaluation of body experience questionnaires in eating disorders in female patients (AN/BN) and nonclinical participants. *Int J Eat Disord, 41*(7), 657-665. doi:10.1002/eat.20531
- R Core Team. (2014). Vienna, Austria Patent No.: T. R. F. f. S. Computing.
- Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. . *Applied Psychological Measurement, 1*, 385-401.
- Ratcliffe, M. (2009). Belonging to the world through the feeling body. *Philosophy, Psychiatry, & Psychology, 16*(2), 205-211.
- Reisenzein, R., & Hofmann, T. (1990). An investigation of dimensions of cognitive appraisal in emotion using the repertory grid technique. *Motivation and Emotion, 14*(1), 1-26.

- Rodríguez-Cano, T., Beato-Fernández, L., & Llarío, A. B. (2006). Body dissatisfaction as a predictor of self-reported suicide attempts in adolescents: A Spanish community prospective study. *Journal of Adolescent Health, 38*(6), 684-688.
- Roth, D., & Armstrong, J. (1993). Feelings of fatness questionnaire: A measure of the cross-situational variability of body experience. *International journal of eating disorders, 14*(3), 349-358.
- Sands, R. (2000). Reconceptualization of body image and drive for thinness. *International journal of eating disorders, 28*(4), 397-407.
- Sartre, J. P. (1943/1966). *Being and Nothingness* (H. E. Barnes, Trans.). New York: Washington Square.
- Schaefer, M., Egloff, B., & Witthöft, M. (2012). Is interoceptive awareness really altered in somatoform disorders? Testing competing theories with two paradigms of heartbeat perception. *J Abnorm Psychol, 121*(3), 719.
- Schandry, R. (1981). Heart beat perception and emotional experience. *Psychophysiology, 18*(4), 483-488.
- Schechtman, M. (1996). *The constitution of selves*: Cornell university press.
- Schilder, P. (1950). *The Image and Appearance of the Human Body* New York: Int. J. Univ. Press.
- Schneider, G., Mendler, T., Heuft, G., & Burgmer, M. (2008). Der Körper in der Konflikt-und Strukturdiagnostik der Operationalisierten Psychodynamischen Diagnostik-Bezug zu Körperkonzepten in der Selbstauskunft. *Zeitschrift für Psychosomatische Medizin und Psychotherapie, 54*(2), 132-149.
- Shear, J., & Varela, F. J. (1999). *The view from within: First-person approaches to the study of consciousness*: Imprint Academic.

- Shields, S. A., Mallory, M. E., & Simon, A. (1989). The body awareness questionnaire: Reliability and validity. *J Pers Assess*, *53*(4), 802-815.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, *20*(5), 580-591.
- Sinton, M. M., & Birch, L. L. (2006). Individual and sociocultural influences on pre-adolescent girls' appearance schemas and body dissatisfaction. *Journal of Youth and Adolescence*, *35*(2), 157-167.
- Skårderud, F. (2007a). Eating one's words, Part I: 'concretised metaphors' and reflective function in anorexia nervosa—An interview study. *European Eating Disorders Review*, *15*(3), 163-174.
- Skårderud, F. (2007b). Eating one's words: Part III. Mentalisation-based psychotherapy for anorexia nervosa—an outline for a treatment and training manual. *European Eating Disorders Review*, *15*(5), 323-339.
- Skårderud, F. (2007c). Shame and pride in anorexia nervosa: A qualitative descriptive study. *European Eating Disorders Review*, *15*(2), 81-97.
- Skrzypek, S., Wehmeier, P., & Remschmidt, H. (2001). Body image assessment using body size estimation in recent studies on anorexia nervosa. A brief review. *European child & adolescent psychiatry*, *10*(4), 215-221.
- Slade, P. D. (1994). What is body image? *Behaviour research and therapy*, *32*(5), 497-502.
- Smith, E., & Rieger, E. (2006). The effect of attentional bias toward shape-and weight-related information on body dissatisfaction. *International journal of eating disorders*, *39*(6), 509-515.
- Sørensen, J. B. (2005). The alien-hand experiment. *Phenomenology and the Cognitive sciences*, *4*(1), 73-90.

- Stanghellini, G., Castellini, G., Brogna, P., Faravelli, C., & Ricca, V. (2012). Identity and eating disorders (IDEA): a questionnaire evaluating identity and embodiment in eating disorder patients. *Psychopathology, 45*(3), 147-158.
doi:10.1159/000330258
- Stice, E., & Bearman, S. K. (2001). Body-image and eating disturbances prospectively predict increases in depressive symptoms in adolescent girls: a growth curve analysis. *Developmental psychology, 37*(5), 597.
- Stice, E., & Whitenton, K. (2002). Risk factors for body dissatisfaction in adolescent girls: a longitudinal investigation. *Developmental psychology, 38*(5), 669.
- Strigo, I. A., Matthews, S. C., Simmons, A. N., Oberndorfer, T., Klabunde, M., Reinhardt, L. E., & Kaye, W. H. (2013). Altered insula activation during pain anticipation in individuals recovered from anorexia nervosa: Evidence of interoceptive dysregulation. *International journal of eating disorders, 46*(1), 23-33.
- Surveygizmo. (2010). Surveygizmo. Retrieved from Available:
www.surveygizmo.com
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*: American Psychological Association.
- Toombs, S. K. (2001). Introduction: Phenomenology and medicine *Handbook of phenomenology and medicine* (pp. 1-26): Springer.
- Trentowska, M., Bender, C., & Tuschen-Caffier, B. (2013). Mirror exposure in women with bulimic symptoms: How do thoughts and emotions change in body image treatment? *Behaviour research and therapy, 51*(1), 1-6.

- Tury, F., Gulec, H., & Kohls, E. (2010). Assessment methods for eating disorders and body image disorders. *J Psychosom Res*, *69*(6), 601-611.
doi:10.1016/j.jpsychores.2009.05.012
- United Nations Statistics Division, U. (2012). UNDATA – a data access system to UN databases. Retrieved from <http://dta.un.org/>. <http://dta.un.org/>
- Vaccarino, A. L., Sills, T. L., Evans, K. R., and Kalali, A. H. (2009). Multiple Pain Complaints in Patients With Major Depressive Disorder. *Psychosomatic Medicine*, *71*, 159-162.
- Varela, F. J., Thompson, E., & Rosch, E. (1993). *The embodied mind. Cognitive Science and Human Experience*. London: MIT press.
- Wrathall, M. E., & Malpas, J. E. (2000). *Heidegger, coping, and cognitive science: Essays in honor of Hubert L. Dreyfus, Vol. 2*: The MIT Press.
- Zucker, N., & Harshaw, C. (2012). Emotion, Attention, and Relationships: A Developmental Model of Self-Regulation in Anorexia Nervosa and Related Disordered Eating Behaviors. In J. Lock (Ed.), *The Oxford Handbook of Developmental Perspectives on Child and Adolescent Eating Disorders*. (pp. 67-87). London: Oxford Press.
- Zucker, N., Wagner, H. R., Merwin, R., Bulik, C. M., Moskovich, A., Keeling, L., & Hoyle, R. (2015). Self-focused attention in anorexia nervosa. *International journal of eating disorders*, *48*(1), 9-14.

ANNEXES

ANNEX N° 1: Informed Consents for General Population and Clinical samples.

ENCUESTA ACERCA DE ACTITUDES ALIMENTARIAS Y EXPERIENCIAS EMOCIONALES DEL CUERPO

Ud. ha sido invitado(a) a colaborar en una encuesta que explora actitudes y conductas alimentarias, junto con experiencias emocionales acerca del propio cuerpo, como parte de un proyecto de tesis del programa de Doctorado Internacional en Psicoterapia de la Universidad de Chile, Pontificia Universidad Católica de Chile y la Universidad de Heidelberg. La información que aquí se presenta tiene como propósito ayudarlo(a) a decidir acerca de su participación en este estudio, el cual pretende contribuir al diagnóstico en Chile de patologías asociadas al ámbito de la alimentación y la relación con el propio cuerpo.

Se invita a participar a personas entre 18 y 45 años.

Su participación consistirá en responder dos cuestionarios que evalúan actitudes y conductas alimentarias, dos cuestionarios que evalúan la experiencia de su cuerpo, un cuestionario que evalúa depresión y una encuesta socio-médica de información general y de salud. Algunas preguntas se repiten, por favor, conteste todas las preguntas. Puede completar las encuestas presencialmente mediante papel y lápiz o mediante acceso a Internet en una encuesta en línea. Se estima que le tomará un tiempo aproximado de 45 minutos completar esta encuesta.

Su participación es absolutamente voluntaria, pudiendo rechazarla antes de participar, o renunciar en cualquier momento sin ninguna consecuencia para Ud. Si renuncia y quiere que sus datos sean eliminados, envíe un correo electrónico a las investigadoras responsables a las direcciones señaladas más abajo.

Si al responder los siguientes cuestionarios Ud. sintiera la necesidad de pedir ayuda profesional en relación a algunos de los puntos que se evalúan por favor contáctese con las investigadoras responsables. Así mismo, se requiere contar con su dirección de correo electrónico con el **exclusivo fin de contactarlo(a) en caso que se detecten síntomas que requieran evaluación profesional.**

Esta investigación cuenta con la aprobación del Comité de Ética de Investigación en Seres Humanos de la Facultad de Medicina de la Universidad de Chile. La información que se obtendrá de esta encuesta es absolutamente confidencial, siendo utilizada con fines de investigación y docencia exclusivamente por los investigadores responsables.

Al finalizar la encuesta Ud. podrá participar en un sorteo por una tarjeta de regalo para canjearse en una librería. El sorteo se realizará en un plazo máximo de cuatro meses luego de que Ud. complete esta encuesta.

Cualquier duda o comentario no dude en contactarse al Presidente del Comité de Ética (ceiha@med.uchile.cl) o con la investigadora responsable: Ps. María Isabel Gaete (isagete@ug.uchile.cl).

CONSENTIMIENTO DE PARTICIPACIÓN EN ESTUDIO

Yo _____, he sido invitado/a a participar en el estudio que explora actitudes y conductas alimentarias, junto con experiencias emocionales acerca del propio cuerpo.

He sido informado(a) que:

- 1) Contestaré dos cuestionarios que evalúan actitudes y conductas alimentarias.
- 2) Contestaré dos cuestionarios que evalúan mi experiencia corporal.
- 3) Contestaré un cuestionario que evalúa síntomas depresivos.
- 4) Contestaré una Encuesta Socio-Médica.
- 5) Se requiere mi dirección de correo electrónico para ser contactado en caso necesario.

Entiendo que:

- 1) La información será almacenada **confidencialmente**, no será publicada en su versión original ni en ningún formato que permita mi identificación.
- 2) Esta información será utilizada con fines de investigación y docencia especializada.
- 3) Mi participación es **voluntaria**.
- 4) **Puedo negarme a participar o retirarme** en cualquier momento sin consecuencias negativas para mí.
- 5) La participación en este estudio no tendrá consecuencias negativas para mí.
- 6) Puedo acceder a un sorteo por una giftcard de regalo por mi participación en este estudio para lo cual también se requiere mi correo electrónico.

Sí, he leído y entiendo este documento de consentimiento y estoy de acuerdo en participar en este estudio.

Mi dirección de correo electrónico es:

Nombre y Firma Participante

Fecha

Nombre y Firma Investigador

Fecha

CONSENTIMIENTO DE PARTICIPACIÓN EN ESTUDIO (Copia Investigador)

Yo _____, he sido invitado/a a participar en el estudio que explora actitudes y conductas alimentarias, junto con experiencias emocionales acerca del propio cuerpo.

He sido informado(a) que:

- 1) Contestaré dos cuestionarios que evalúan actitudes y conductas alimentarias.
- 2) Contestaré dos cuestionarios que evalúan mi experiencia corporal.
- 3) Contestaré un cuestionario que evalúa síntomas depresivos.
- 4) Contestaré una Encuesta Socio-Médica.
- 5) Se requiere mi dirección de correo electrónico para ser contactado en caso necesario.

Entiendo que:

- 1) La información será almacenada **confidencialmente**, no será publicada en su versión original ni en ningún formato que permita mi identificación.
- 2) Esta información será utilizada con fines de investigación y docencia especializada.
- 3) Mi participación es **voluntaria**.
- 4) **Puedo negarme a participar o retirarme** en cualquier momento sin consecuencias negativas para mí.
- 5) La participación en este estudio no tendrá consecuencias negativas para mí.
- 6) Puedo acceder a un sorteo por una giftcard de regalo por mi participación en este estudio para lo cual también se requiere mi correo electrónico.

Sí, he leído y entiendo este documento de consentimiento y estoy de acuerdo en participar en este estudio.

Mi dirección de correo electrónico es:

Nombre y Firma Participante

Fecha

Nombre y Firma Investigador

Fecha

CONSENTIMIENTO DE PARTICIPACIÓN EN ESTUDIO

Parte I: Información General

Ud. ha sido invitada a participar en un estudio acerca de la **relación entre Síntomas Alimentarios y la Experiencia Corporal en mujeres adultas entre 18 y 35 años**. La realización de este estudio forma parte de la tesis doctoral de la alumna María Isabel Gaete Celis, del programa de Doctorado Internacional en Psicoterapia de la Universidad de Chile, Pontificia Universidad Católica de Chile y la Universidad de Heidelberg. El presente documento tiene como propósito ayudarla a decidir acerca de su participación en este estudio. Por lo mismo, si la información que se presenta a continuación es insuficiente para Ud., por favor, no dude en consultar a: PhD(c), María Isabel Gaete Celis, Investigadora responsable del presente estudio o al Presidente del Comité de Ética de la U. de Chile que aprobó la ejecución de este proyecto cuyos datos de contacto aparecen más abajo.

Se espera que los resultados de este estudio permitan aportar al tratamiento de los Trastornos de la Conducta Alimentaria.

Su participación es absolutamente voluntaria, pudiendo rechazarla antes de participar, o renunciar a su participación en cualquier momento sin ninguna consecuencia para Ud.

Nadie que no sea el investigador o asistentes de investigación autorizados por el mismo podrá acceder a sus respuestas. Su participación consiste en completar un set de cuestionarios para evaluar la personalidad, la experiencia del cuerpo, síntomas alimentarios y síntomas depresivos; junto a un cuestionario que indagará sobre información general acerca de Ud. y su salud.

Si Ud. se encuentra actualmente en tratamiento por síntomas alimentarios se le solicita autorización para informar a sus especialistas tratantes acerca de los resultados. Dicha información, podría ser beneficiosa para su tratamiento. Si Ud. se encuentra en tratamiento por algún tipo de sintomatología alimentaria, se solicita acceder a su última evaluación nutricional.

En síntesis:

- 1) La información será almacenada **confidencialmente**, no será publicada en su versión original ni en ningún formato que permita su identificación. Con la **única excepción** que **Ud. autorice** informar **a sus tratantes** acerca de los resultados de esta evaluación.
- 2) Esta información será utilizada con fines de investigación y docencia especializada exclusivamente.
- 3) Mi participación es **voluntaria**. Esto significa que, si decido participar o no en este estudio, **recibiré todas las atenciones regulares** que realiza el Centro de Salud al que estoy asistiendo.
- 4) La participación en el estudio no tendrá consecuencias negativas para mí.
- 5) **Puedo negarme a participar o retirarme** en cualquier momento del estudio, sin que esta decisión tenga un efecto negativo sobre la atención que recibo en el Servicio de Psiquiatría del Hospital Naval involucrado en este estudio o sobre la posibilidad de ser atendida nuevamente en otras ocasiones, ni ningún otro tipo de efecto negativo.

CONSENTIMIENTO DE PARTICIPACIÓN EN ESTUDIO

Parte II: Formulario de Consentimiento

Yo _____, he sido invitado/a a participar en un estudio acerca de la **Relación entre Síntomas Alimentarios y la Experiencia Corporal**. Entiendo que este es un proyecto de investigación científica en mujeres adultas.

He sido informada que:

- Contestaré dos cuestionarios que evalúan mi experiencia corporal.
- Contestaré un cuestionario que evalúa síntomas depresivos y dos que evalúan síntomas alimentarios.
- Contestaré una Encuesta Socio-Médica.

Entiendo que:

- La información será almacenada **confidencialmente**, no será publicada en su versión original ni en ningún formato que permita mi identificación.
- Esta información será utilizada con fines de investigación y docencia especializada.
- Mi participación es **voluntaria**. Esto significa que, si decido participar o no en este estudio, **recibiré todas las atenciones que correspondan** en el Centro de Salud al que estoy asistiendo.
- La participación en este estudio no tendrá consecuencias negativas para mi tratamiento.
- **Puedo negarme a participar o retirarme** en cualquier momento del estudio, sin que esta decisión tenga un efecto negativo sobre la atención que recibo en el Centro de Salud al que estoy asistiendo o sobre la posibilidad de ser atendido/a nuevamente en otras ocasiones.

Autorizo informar a mis especialistas tratantes los resultados de esta evaluación:

SÍ **NO**

Si, he leído y entiendo este documento de consentimiento y estoy de acuerdo en participar en este estudio.

Firma Participante

Fecha

Firma Investigador

Fecha

CONSENTIMIENTO DE PARTICIPACIÓN EN ESTUDIO (copia investigador)

Parte II: Formulario de Consentimiento

Yo _____, he sido invitado/a a participar en un estudio acerca de la **Relación entre Síntomas Alimentarios y la Experiencia Corporal**. Entiendo que este es un proyecto de investigación científica en mujeres adultas.

He sido informada que:

- Contestaré dos cuestionarios que evalúan mi experiencia corporal.
- Contestaré un cuestionario que evalúa síntomas depresivos y dos que evalúan síntomas alimentarios.
- Contestaré una Encuesta Socio-Médica.

Entiendo que:

- La información será almacenada **confidencialmente**, no será publicada en su versión original ni en ningún formato que permita mi identificación.
- Esta información será utilizada con fines de investigación y docencia especializada.
- Mi participación es **voluntaria**. Esto significa que, si decido participar o no en este estudio, **recibiré todas las atenciones que correspondan** en el Centro de Salud al que estoy asistiendo.
- La participación en este estudio no tendrá consecuencias negativas para mi tratamiento.
- **Puedo negarme a participar o retirarme** en cualquier momento del estudio, sin que esta decisión tenga un efecto negativo sobre la atención que recibo en el Centro de Salud al que estoy asistiendo o sobre la posibilidad de ser atendido/a nuevamente en otras ocasiones.

Autorizo informar a mis especialistas tratantes los resultados de esta evaluación:

SÍ **NO**

Si, he leído y entiendo este documento de consentimiento y estoy de acuerdo en participar en este estudio.

Firma Participante

Fecha

Firma Investigador

Fecha

**BEFRAGUNG ZUM ESSVERHALTEN UND EMOTIONALER
KÖRPERERFAHRUNG
EINWILLIGUNGSERKLÄRUNG ZUR STUDIENTEILNAHME**

Wir haben Sie zur Teilnahme an dieser Studie eingeladen, in der es um Essverhalten und Ernährungseinstellungen, sowie emotionale Erfahrungen in Bezug auf den eigenen Körper bei Personen zwischen 18 und 45 Jahren geht.

Die nachfolgenden Informationen sollen Ihnen bei der Entscheidung für oder gegen die Teilnahme an dieser Studie helfen, die zur Behandlung von Störungen des Essverhaltens und der Beziehung zum eigenen Körper beigetragen soll.

Ihre Angaben werden **vertraulich** aufbewahrt, nicht im Original veröffentlicht und auch in keinem anderen Format, das eine Identifikation Ihrer Person erlauben würde. Ihre Informationen werden ausschließlich für wissenschaftliche Zwecke und die einschlägige Lehre verwendet.

Ihre Teilnahme ist **freiwillig**. **Sie können die Teilnahme verweigern oder Ihre Teilnahme zu jedem Zeitpunkt abbrechen**, ohne, dass dies negative Konsequenzen für Sie hat.

Die Beantwortung dieser Befragung dauert etwa 45 Minuten. Manche Fragen ähneln einander, bitte beantworten Sie dennoch alle Fragen. Wenn Sie nicht die gesamte Befragung auf einmal beantworten möchten, können Sie Ihre bisherigen Antworten speichern, indem Sie auf die obere Schaltfläche "Speichern und später weiter machen" klicken, und später weiter arbeiten.

Wenn Sie Ihre Teilnahme abbrechen und möchten, dass Ihre Daten gelöscht werden, senden Sie eine E-Mail an die Studienleiterinnen, deren Adressen Sie am unteren Ende dieser Seite finden.

Die Teilnahme an dieser Studie hat keine negativen Konsequenzen für Sie. Wenn Sie möchten, können Sie an einer Verlosung teilnehmen, wofür Sie Ihre E-Mailadresse angeben müssen. Innerhalb von maximal vier Monaten wird ein Gutschein in Höhe von 30 Euro für Bücher, Musik oder Filme bei Amazon verlost.

<p>Wenn Sie auf "weiter" klicken, bestätigen Sie, dass Sie die Teilnahmebedingungen gelesen und verstanden haben und dass Sie einverstanden sind mit der Teilnahme an dieser Studie.</p>
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ANNEX N°2: Final version of Emotional Bodily Questionnaire (EBEQ).
German, Spanish and English versions.

Note: German version was developed by translation and back-translation processes.

EBEQ - Fragebogen zur emotionalen Körpererfahrung (Gaete, M. I.)

LESEN SIE DIE INSTRUKTIONEN AUFMERKSAM DURCH UND ANTWORTEN SIE SO, WIE ES IHRER PERSÖNLICHEN ERFAHRUNG ENTSPRICHT.

ES GIBT KEINE RICHTIGEN ODER FALSCHEN ANTWORTEN.

I.- Das Verhältnis zum eigenen Körper kann von Person zu Person sehr unterschiedlich sein. Manche Menschen achten für gewöhnlich kaum oder gar nicht auf die Signale ihres Körpers und stattdessen sehr stark oder sogar zu viel auf ihre Umgebung, andere Menschen achten zu sehr auf ihre Körpersignale und nur wenig auf ihre Umgebung, und wiederum andere achten sowohl auf ihren Körper als auch ihre Umgebung. **Mit "Umgebung" ist alles gemeint, was nicht Ihr Körper ist.**

- 1) Worauf lenken Sie Ihre Aufmerksamkeit für gewöhnlich stärker? (Bitte kreuzen Sie an)

_____ Auf Ihren Körper

_____ Auf die Umgebung

_____ Auf beides gleich stark (Körper und Umgebung)

- 2) Wie viel Aufmerksamkeit schenken Sie für gewöhnlich Ihrem Körper und wie viel Ihrer Umgebung?

Markieren Sie mit einem Kreuz das Feld, das am besten auf Sie zutrifft.

(Sie können sowohl dasselbe Ausmaß an Aufmerksamkeit für den Körper und die Umgebung ankreuzen oder auch unterschiedliche).

AUSMAß AN AUFMERKSAMKEIT, DASS ICH FÜR GEWÖHNLICH AUSRICHTE AUF:	Gar keine	Wenig	Mäßig	Einigermaßen	Viel	Zuviel
MEINEN KÖRPER						
DIE UMGEBUNG UM MICH HERUM						

II.- Die Aufmerksamkeit, die Menschen auf ihren Körper richten, kann sich je nach emotionale Zustände unterscheiden.

EMOTIONEN. *Es gibt Menschen, die bei starken Gefühlen "automatisch" auf die Situation reagieren, ohne weiter auf ihre Körpersignale zu achten. Andere wiederum fühlen sich "wie gelähmt", ohne auf die Situation reagieren zu können, weil die emotionalen Körpersignale (z.B. Luftnot, Druck auf der Brust, Herzklopfen, Schwitzen) ihre gesamte Aufmerksamkeit einnehmen. Andere können auf die Umgebung reagieren und gleichzeitig die emotionalen Signale ihres Körpers wahrnehmen (z.B. spüren, dass einem zum Weinen zumute ist, und dennoch gleichzeitig in der Lage sein, weiter zu sprechen, zu denken und zu reagieren).*

Wählen Sie für jede der folgenden Emotionen die Zahl, die am besten dem Ausmaß an Aufmerksamkeit entspricht, das Sie den Signalen Ihres Körpers schenken.

<u>AUSMAß AN AUFMERKSAMKEIT FÜR DEN KÖRPER UND DIE UMGEBUNG</u>						
Gar keine	Wenig	Mäßig	Einigermaßen	Viel	Zuviel	
0	1	2	3	4	5	
	Wenn ich sehr fröhlich bin	Wenn ich sehr traurig bin	Wenn ich sehr wütend bin	Wenn ich mich sehr ekele	Wenn ich sehr überrascht bin	Wenn ich sehr viel Angst habe
Aufmerksamkeit für den <u>Körper</u>	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben

III.- Im Folgenden geht es um eine Reihe unterschiedlicher Situationen. Beurteilen Sie:

1) Wie angenehm oder unangenehm sind die Situationen für Sie? (Geben Sie die entsprechende Zahl an)

2) Wie sehr achten Sie in diesen Situationen auf Ihre Körpersignale und wie sehr auf Ihre Umgebung? (Geben Sie die entsprechenden Zahlen an)

Mit "Umgebung" ist alles gemeint, was nicht Ihr Körper ist. Das Ausmaß an Aufmerksamkeit für Ihren Körper und Ihre Umgebung kann gleich oder unterschiedlich sein.

KÖRPERLICHE BEDÜRFNISSE. Im Laufe eines Tages spüren wir unterschiedliche Empfindungen körperlicher Bedürfnisse (angenehme, unangenehme oder neutrale), die uns mehr oder weniger auf unseren Körper und unsere Umgebung achten lassen.												
INTENSITÄT DES BEHAGENS/UNBEHAGENS ODER NEUTRAL												
Sehr unangenehm		ein wenig			Neutral	ein wenig			Sehr angenehm			
-5	-4	-3	-2	-1	0	1	2	3	4	5		
AUSMAß AN AUFMERKSAMKEIT FÜR DEN KÖRPER UND DIE UMGEBUNG												
Gar keine		Wenig		Mäßig		Einigermaßen		Viel		Zuviel		
0	1	2	3	4	5							
	ANGENEHM/UNANGENEHM ODER NEUTRAL				AUFMERKSAMKEIT FÜR MEINEN KÖRPER				AUFMERKSAMKEIT FÜR DIE UMGEBUNG			
9. Gefühl nachdem ich mit Hunger gegessen habe	entsprechende Zahl angeben				entsprechende Zahl angeben				entsprechende Zahl angeben			
10. Gefühl nachdem ich mit Durst getrunken habe	entsprechende Zahl angeben				entsprechende Zahl angeben				entsprechende Zahl angeben			
11. Körperempfinden nach einem Orgasmus	entsprechende Zahl angeben				entsprechende Zahl angeben				entsprechende Zahl angeben			
12. Sich ausgeruht fühlen nach dem Schlafen oder einer langen Pause	entsprechende Zahl angeben				entsprechende Zahl angeben				entsprechende Zahl angeben			
13. Empfindung, wenn man sich bei Hitze erfrischt	entsprechende Zahl angeben				entsprechende Zahl angeben				entsprechende Zahl angeben			
14. Empfindung nach dem Urinieren oder Stuhlgang	entsprechende Zahl angeben				entsprechende Zahl angeben				entsprechende Zahl angeben			

GEFALLEN. Es folgt eine Liste unangenehmer und angenehmer körperlicher Empfindungen. Empfindungen, die für die Einen sehr angenehm sind, können für Andere neutral oder sogar unangenehm sein. Manche Menschen richten ihre Aufmerksamkeit auf körperliches Unbehagen mit der Absicht, es zu lindern, Andere lenken sich davon ab, um körperliches Unbehagen zu lindern. Auch gibt es Menschen, die körperlichen Genuss mehr als Form des Vergnügens betrachten, während Andere den körperlichen Genuss weniger wahrnehmen und sich stärker der Umgebung zuwenden.

INTENSITÄT DES BEHAGENS/UNBEHAGENS ODER NEUTRAL

Sehr unangenehm		ein wenig			Neutral	ein wenig			Sehr angenehm	
-5	-4	-3	-2	-1	0	1	2	3	4	5

AUSMAß AN AUFMERKSAMKEIT FÜR DEN KÖRPER UND DIE UMGEBUNG

Gar keine	Wenig	Mäßig	Einigermaßen	Viel	Zuviel
0	1	2	3	4	5

	ANGENEHM/UNANGENEHM ODER NEUTRAL	AUFMERKSAMKEIT FÜR MEINEN KÖRPER	AUFMERKSAMKEIT FÜR DIE UMGEBUNG
15. Wenn ich erotisch liebkost werde	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
16. Wenn ich meinen Blick in einer Umgebung mit sanftem Licht ruhen lasse	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
17. Beim Musikhören	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
18. Beim Riechen eines leckeren Duftes	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
19. Beim Schmecken meiner Lieblingsspeise	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
20. Körperliche Empfindungen sexueller Erregung	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben

PRIVAT versus ÖFFENTLICH. Sich in der Öffentlichkeit oder im Privaten aufzuhalten kann mehr oder weniger angenehm sein und die Aufmerksamkeit stärker auf den Körper oder die Umgebung lenken. Zum Beispiel spüren manche Menschen während einer mündlichen Prüfung einen starken Herzschlag, können aber trotzdem die Fragen beantworten, Andere hingegen können nicht antworten, weil sie ihren Herzschlag, Luftnot, etc. so intensiv spüren. Andere konzentrieren sich vollkommen auf die Umgebung, bis die Anforderung, sich anderen Menschen auszusetzen vorüber ist, und spüren dann wieder ihre körperlichen Empfindungen. Es gibt Menschen die, wenn sie allein oder zuhause sind, versuchen, sich mit Aktivitäten von ihren körperlichen Empfindungen "abzulenken", und Andere, die einen stärkeren Zugang zu ihren Körperempfindungen haben, wenn sie allein oder zuhause sind (Entspannung, Müdigkeit, etc.).

INTENSITÄT DES BEHAGENS/UNBEHAGENS ODER NEUTRAL

Sehr unangenehm		ein wenig			Neutral	ein wenig			Sehr angenehm	
-5	-4	-3	-2	-1	0	1	2	3	4	5

AUSMAß AN AUFMERKSAMKEIT FÜR DEN KÖRPER UND DIE UMGEBUNG

Gar keine	Wenig	Mäßig	Einigermaßen	Viel	Zuviel
0	1	2	3	4	5

	ANGENEHM/UNANGENEHM ODER NEUTRAL	AUFMERKSAMKEIT FÜR MEINEN KÖRPER	AUFMERKSAMKEIT FÜR DIE UMGEBUNG
21. Körperliche Intimität mit meinem Partner / meiner Partnerin.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
22. Wenn ich von einem Fremden beobachtet werde.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
23. Wenn ich in einen Raum komme, der voll ist mit Menschen, die ich nicht kenne.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben

KONFLIKTE MIT MEINEM KÖRPER. Es folgen einige Situationen, in denen die Signale des Körpers mit der Situation oder den Umständen in Konflikt stehen. Menschen unterscheiden sich darin, ob sie in Situationen, in denen sie zwischen dem Körper und Umgebung wählen müssen, um den Konflikt zu lösen, eher die Umgebung oder den Körper beachten. **Beachten Sie, dass mehr Aufmerksamkeit für den Körper im Vergleich zur Umgebung bedeutet, die Körpersignale stärker zu beachten, und dass mehr Aufmerksamkeit für die Umgebung bedeutet, die äußeren Umstände stärker zu berücksichtigen und die Körpersignale hinten an zu stellen.**

INTENSITÄT DES BEHAGENS/UNBEHAGENS ODER NEUTRAL

Sehr unangenehm				ein wenig	Neutral	ein wenig				Sehr angenehm
-5	-4	-3	-2	-1	0	1	2	3	4	5
AUSMAß AN AUFMERKSAMKEIT FÜR DEN KÖRPER UND DIE UMGEBUNG										
Gar keine	Wenig		Mäßig		Einigermaßen		Viel		Zuviel	
0	1		2		3		4		5	

	ANGENEHM/ UNANGENEHM ODER NEUTRAL	AUFMERKSAM- KEIT FÜR MEINEN KÖRPER	AUFMERKSAM- KEIT FÜR DIE UMGEBUNG
24. Sie sind erschöpft und müssen weiter lernen oder arbeiten.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
25. Sie müssen morgens aufstehen, möchten aber weiter schlafen.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
26. Sie möchten etwas unternehmen und können nicht, weil sie krank sind.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben
27. Sie unterhalten sich sehr interessiert mit jemand wichtigem und haben starke Kopfschmerzen.	entsprechende Zahl angeben	entsprechende Zahl angeben	entsprechende Zahl angeben

EBEQ- Cuestionario acerca de la Experiencia Corporal Emocional (Gaete, M. I.)

LEA ATENTAMENTE LAS INSTRUCCIONES Y RESPONDA SEGÚN SU EXPERIENCIA PERSONAL.

NO EXISTEN RESPUESTAS CORRECTAS O INCORRECTAS.

I.- Diferentes personas tienen diferentes formas o estilos de relación con sus propios cuerpos. Algunas habitualmente atienden poco o nada a sus señales corporales y bastante o demasiado al entorno que las rodea, otros atienden demasiado a sus señales corporales y poco al entorno que las rodea y otros atienden tanto a su cuerpo como al entorno. **Considere “entorno” todo lo que no es su cuerpo.**

3) Habitualmente, ¿A qué le presta más atención? (Marque con una cruz)

_____ A su cuerpo

_____ Al entorno que lo rodea

_____ A ambos por igual

A continuación interesa saber,

4) ¿Cuánta atención habitualmente le presta a su cuerpo y cuánta atención le presta a su entorno?

Marque con una cruz el casillero que corresponda

(Puede marcar el mismo nivel de atención tanto para el cuerpo como para el entorno o pueden ser diferentes).

<i>NIVEL DE ATENCIÓN QUE HABITUALMENTE DIRIGE HACIA:</i>	<i>Ninguna</i>	<i>Escasa</i>	<i>Moderada</i>	<i>Bastante</i>	<i>Mucha</i>	<i>Demasiada</i>
<i>SU CUERPO</i>						
<i>EL ENTORNO QUE LO RODEA</i>						

II.- La atención que las personas prestan a su cuerpo también puede variar dependiendo de los estados emocionales.

EMOCIONES. Hay personas que ante emociones intensas responden “automáticamente” a las circunstancias sin mayor atención a sus señales corporales otros por el contrario se “paralizan” sin poder reaccionar ante las circunstancias pues las señales corporales emocionales (falta de aire, presión en el pecho, palpitaciones, sudoración, etc.) captan toda su atención. Otros pueden reaccionar al entorno sin dejar de sentir las señales corporales emocionales (pueden sentir ganas de llorar sin dejar de hablar, pensar y responder al mismo tiempo).

Para cada una de las emociones a continuación, escoja el número que mejor represente el nivel de atención que le presta a sus señales corporales.

<u>NIVEL DE ATENCIÓN AL CUERPO</u>						
Ninguna	Escasa	Moderada	Bastante	Mucha	Demasiada	
0	1	2	3	4	5	
	Quando siento alegría intensa	Quando siento mucha pena	Quando siento mucha rabia	Quando siento mucho asco	Quando me siento muy Sorprendido	Quando siento mucho miedo
<u>Atención al Cuerpo</u>	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente

III.- A continuación se presenta una serie de situaciones diferentes. Evalúe:

3) *¿Qué tan agradables o desagradables son para Ud.? (marque con el número correspondiente)*

4) *¿Cuánto atiende a sus señales corporales y cuánto al entorno que lo rodea en dichas situaciones? (marque con el número correspondiente)*

Considere “entorno” todo lo que NO es su cuerpo. Recuerde que el nivel de atención al cuerpo y al entorno puede ser el mismo o diferente.

NECESIDADES CORPORALES. A lo largo del día experimentamos diferentes sensaciones de necesidades corporales (agradables, desagradables o neutras), que pueden llevarnos a atender más o menos a nuestro cuerpo y al entorno.													
INTENSIDAD AGRADO/DESAGRADO O NEUTRAL													
Muy Desagradable			Un poco			Neutral			Un poco			Muy Agradable	
-5	-4	-3	-2	-1	0	1	2	3	4	5			
ATENCIÓN A MI CUERPO Y ATENCIÓN AL ENTORNO													
Ninguna		Escasa		Moderada		Bastante		Mucha		Demasiada			
0		1		2		3		4		5			
				AGRADO/DESAGRADO O NEUTRAL				ATENCIÓN A MI CUERPO				ATENCIÓN AL ENTORNO	
9. Sensación luego de haber comido con hambre				Indicar número correspondiente				Indicar número correspondiente				Indicar número correspondiente	
10. Sensación luego de beber cuando se está sediento (a)				Indicar número correspondiente				Indicar número correspondiente				Indicar número correspondiente	
11. Sensación corporal de Orgasmo				Indicar número correspondiente				Indicar número correspondiente				Indicar número correspondiente	
12. Sentirse repuesto luego de dormir o de un buen descanso				Indicar número correspondiente				Indicar número correspondiente				Indicar número correspondiente	
13. Sensación al refrescarse del calor				Indicar número correspondiente				Indicar número correspondiente				Indicar número correspondiente	
14. Sensación luego de orinar o defecar				Indicar número correspondiente				Indicar número correspondiente				Indicar número correspondiente	

PLACER. A continuación se le presenta una lista de sensaciones corporales. Sensaciones que para algunos son muy agradables para otros son neutrales o, incluso desagradables. Algunas personas atienden al displacer corporal como forma de buscar el alivio, otras para aliviarlo se distraen de él. También hay personas que atienden más al placer corporal como forma de disfrutar, otras en cambio perciben menos el placer por estar más atentas al entorno.

INTENSIDAD AGRADO/DESAGRADO O NEUTRAL

Muy Desagradable					Un poco	Neutral	Un poco			Muy Agradable	
-5	-4	-3	-2	-1	0	1	2	3	4	5	

NIVEL DE ATENCIÓN A MI CUERPO Y AL ENTORNO

Ninguna	Escasa	Moderada	Bastante	Mucha	Demasiada
0	1	2	3	4	5

	AGRADO/DESAGRADO O NEUTRAL	ATENCIÓN A MI CUERPO	ATENCIÓN AL ENTORNO
15. Al recibir caricias eróticas	Indicar número	Indicar número correspondiente	Indicar número correspondiente
16. Al descansar la vista en un ambiente de luz tenue	Indicar número	Indicar número correspondiente	Indicar número correspondiente
17. Al escuchar música	Indicar número	Indicar número correspondiente	Indicar número correspondiente
18. Al sentir un aroma apetitoso	Indicar número	Indicar número correspondiente	Indicar número correspondiente
19. Al saborear mi comida favorita	Indicar número	Indicar número correspondiente	Indicar número correspondiente
20. Sensaciones corporales de excitación sexual	Indicar número	Indicar número correspondiente	Indicar número correspondiente

PRIVACIDAD versus EXPOSICIÓN PÚBLICA. Podemos sentir la exposición pública o la privacidad con más o menos agrado y podemos prestar más o menos atención al cuerpo y al entorno. Por ejemplo, algunos al realizar un examen oral sienten los latidos del corazón pero no por eso dejan de responder las preguntas del profesor, otros no pueden responder porque sienten muy intensamente los latidos del corazón, falta de aire, etc. Otros atienden totalmente al entorno hasta que la exigencia de exponerse a los demás ha pasado pudiendo entonces notar nuevamente sus sensaciones corporales. Hay personas que al estar en privado o solitarios buscan “distraerse” de sus señales corporales haciendo cosas y otros se conectan más con las señales corporales estando solos o en privado (relajo, cansancio, etc.)

INTENSIDAD AGRADO/DESAGRADO O NEUTRAL

Muy Desagradable		Un poco			Neutral	Un poco			Muy Agradable	
-5	-4	-3	-2	-1	0	1	2	3	4	5
NIVEL DE ATENCIÓN A MI CUERPO Y AL ENTORNO										
Ninguna		Escasa		Moderada		Bastante		Mucha		Demasiada
0	1	2	3	4	5					

	AGRADO/DESAGRADO O NEUTRAL	ATENCIÓN A MI CUERPO	ATENCIÓN AL ENTORNO
21. Intimidad física con mi pareja.	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente
22. Siendo observado (a) por un desconocido.	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente
23. Al entrar a una habitación llena de gente desconocida.	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente

CONFLICTOS CON MI CUERPO. A continuación se le presentan algunas situaciones en que las señales de su cuerpo están en conflicto con el contexto o circunstancias. Las personas varían en atender al entorno o al cuerpo en **situaciones en las que deben elegir (atender más al cuerpo o al entorno) para resolver el conflicto.** Considere que prestarle más atención a su cuerpo que al entorno implica “hacerle caso” a sus señales corporales y que prestarle más atención al entorno implicaría “tomar más en cuenta” las circunstancias y postergar las señales de su cuerpo.

INTENSIDAD AGRADO/DESAGRADO O NEUTRAL

Muy Desagradable				Un poco	Neutral	Un poco				Muy Agradable
-5	-4	-3	-2	-1	0	1	2	3	4	5
NIVEL DE ATENCIÓN A MI CUERPO Y AL ENTORNO										
Ninguna		Escasa		Moderada		Bastante		Mucha		Demasiada
0		1		2		3		4		5

	AGRADO/DESAGRADO O NEUTRAL	ATENCIÓN A MI CUERPO	ATENCIÓN AL ENTORNO
24. Está agotado(a) y tiene que seguir estudiando o trabajando	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente
25. Tiene que levantarse en la mañana pero quiere seguir durmiendo	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente
26. Quiere realizar alguna actividad y no puede por encontrarse enfermo(a)	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente
27. Está conversando muy interesado(a) con alguien importante y le duele muchísimo la cabeza	Indicar número correspondiente	Indicar número correspondiente	Indicar número correspondiente

EBEQ – Emotional Bodily Experience Questionnaire (Gaete, M. I.)

READ THE INSTRUCTIONS CAREFULLY AND ANSWER ACCORDING TO YOUR PERSONAL EXPERIENCE.

THERE ARE NO RIGHT OR WRONG ANSWERS.

I.- Different people have different ways or styles of relating to their own bodies. Some tend to pay little or no attention to their bodily signals and much or too much to their surroundings, others focus too much on their bodily signals and care little for their surroundings, and others take into account both their bodies and their environment. **Consider everything that is not your body to be your environment.**

1. Normally, what do you pay the most attention to? (Write an X to choose)

- Your body
- Your environment
- Both to the same extent

Now, it is relevant to know,

2. How much attention do you usually pay to your body and how much attention do you pay to your environment?

Write an X on the box that represents your choice

(You can select the same level of attention for both your body and your environment, but they can also be different).

LEVEL OF ATTENTION YOU USUALLY PAY TO:	<i>None</i>	<i>A little</i>	<i>Moderate</i>	<i>Quite a lot</i>	<i>A lot</i>	<i>Too much</i>
YOUR BODY						
YOUR ENVIRONMENT						

II.- The attention that people pay to their bodies can also vary depending on their emotional states.

EMOTIONS. *Some people, when they experience intense emotions, respond “automatically” to the circumstances, without paying much attention to their bodily signals; in contrast, other people become “paralyzed” and are unable to respond to the circumstances because their emotional bodily signals (breathlessness, pressure in their chest, palpitations, sweating, etc.) capture all their attention. Others react to their environment while continuing to feel emotional bodily signals (they may feel like crying, but are able to continue speaking, thinking, and responding at the same time).*

For each of the emotions below, choose the number that best represents the level of attention that you pay to your bodily signals.

<u>LEVEL OF ATTENTION PAID TO YOUR BODY</u>						
None	A little	Moderate	Quite a lot	A lot	Too much	
0	1	2	3	4	5	
	3. When I feel intense happiness	4. When I am very sad	5. When I am very angry	6. When I am very disgusted	7. When I feel very surprised	8. When I am very scared
Attention paid to your <u>body</u>	Choose a number to answer	Choose a number to answer	Choose a number to answer	Choose a number to answer	Choose a number to answer	Choose a number to answer

III.- The following is a set of different situations. Evaluate:

- 1) *How pleasant or unpleasant are they to you? (choose a number to answer)*
- 2) *How much attention do you pay to your bodily signals and to your environment in these situations? (choose a number to answer)*

Consider everything that is NOT your body to be your environment. Remember that the level of attention paid to the body and to the surroundings can be the same or different.

BODILY NEEDS. Throughout the day, we experience a number of sensations associated with bodily needs (pleasant, unpleasant, or neutral), which can make us pay more or less attention to our body and to our surroundings.											
INTENSITY OF PLEASANTNESS/UNPLEASANTNESS OR NEUTRALITY											
Very unpleasant					A little	Neutral	A little				Very pleasant
5	-4	-3	-2	-1	0	1	2	3	4	5	
LEVEL OF ATTENTION PAID TO MY BODY AND TO THE ENVIRONMENT											
None		A little			Moderate		Quite a lot		A lot		Too much
0	1	2	3	4	5						
				PLEASANT/ UNPLEASANT OR NEUTRAL		ATTENTION PAID TO MY BODY			ATTENTION PAID TO THE ENVIRONMENT		
9. Sensation after eating when I am hungry				Choose a number to answer		Choose a number to answer			Choose a number to answer		
10. Sensation after having something to drink when I am thirsty				Choose a number to answer		Choose a number to answer			Choose a number to answer		
11. Bodily sensation of orgasm				Choose a number to answer		Choose a number to answer			Choose a number to answer		
12. Feeling recovered after sleeping or having a good rest				Choose a number to answer		Choose a number to answer			Choose a number to answer		
13. Sensation when you are hot and cool yourself off				Choose a number to answer		Choose a number to answer			Choose a number to answer		
14. Sensation after urinating or defecating											

PLEASURE. The following is a list of bodily sensations. Some of them are very pleasant to some people, but others experience them as neutral or even unpleasant. Some people pay attention to bodily displeasure as a way of seeking relief, while others, to relieve it, try to distract themselves from it. Some people pay more attention to bodily pleasure as a way of finding enjoyment, while others perceive less pleasure because they pay more attention to their environment.

INTENSITY OF PLEASANTNESS/UNPLEASANTNESS OR NEUTRALITY

Very unpleasant				A little	Neutral	A little				Very pleasant
-5	-4	-3	-2	-1	0	1	2	3	4	5

LEVEL OF ATTENTION PAID TO MY BODY AND TO THE ENVIRONMENT

None	Little	Moderate	Quite a lot	A lot	Too much
0	1	2	3	4	5

	PLEASANT/ UNPLEASANT OR NEUTRAL	ATTENTION PAID TO MY BODY	ATTENTION PAID TO THE ENVIRONMENT
15. When receiving erotic caresses	Choose a number to answer	Choose a number to answer	Choose a number to answer
16. When resting my eyes in a dimly lit environment	Choose a number to answer	Choose a number to answer	Choose a number to answer
17. When listening to music	Choose a number to answer	Choose a number to answer	Choose a number to answer
18. When perceiving an appetizing smell	Choose a number to answer	Choose a number to answer	Choose a number to answer
19. When tasting my favorite food	Choose a number to answer	Choose a number to answer	Choose a number to answer
20. Bodily sensations of sexual arousal	Choose a number to answer	Choose a number to answer	Choose a number to answer

PRIVACY versus PUBLIC EXPOSURE. Public exposure or privacy can be more or less pleasant to us and we can pay more or less attention to our body and our environment. For example, during an oral examination, some people can feel their heartbeat but that does not prevent them from answering the teacher's questions, whereas others cannot respond because they feel their pulse too intensely, feel short of breath, etc. Others pay full attention to their environment until the demand of exposing themselves to others passes, and only then can they notice their bodily sensations again. Some people, in private or when they are alone, seek to "distract" themselves from their bodily signals by doing things, while others connect more strongly to their bodily signals (relaxedness, tiredness, etc.) when they are alone or in private.

INTENSITY OF PLEASANTNESS/UNPLEASANTNESS OR NEUTRALITY

Very unpleasant				A little	Neutral	A little					Very pleasant
-5	-4	-3	-2	-1	0	1	2	3	4	5	
LEVEL OF ATTENTION PAID TO MY BODY AND TO THE ENVIRONMENT											
None		A little		Moderate		Quite a lot		A lot		Too much	
0		1		2		3		4		5	

	PLEASANT/ UNPLEASANT OR NEUTRAL	ATTENTION PAID TO MY BODY	ATTENTION PAID TO THE ENVIRONMENT
21. Physical intimacy with my partner.	Choose a number to answer	Choose a number to answer	Choose a number to answer
22. Being watched by an unknown person.	Choose a number to answer	Choose a number to answer	Choose a number to answer
23. Entering a room full of unknown people.	Choose a number to answer	Choose a number to answer	Choose a number to answer

CONFLICTS WITH MY BODY. The following are some situations in which your bodily signals clash with the context or the circumstances. People pay varying levels of attention to the environment or to their bodies **in situations in which they must choose (to pay more attention to the former or the latter) to solve the conflict.** Consider that paying more attention to your body than to the environment involves “listening” to your bodily signals and that paying more attention to the environment would involve “privileging” the circumstances and putting your bodily needs in second place.

INTENSITY OF PLEASANTNESS/UNPLEASANTNESS OR NEUTRALITY

Very unpleasant		A little	Neutral	A little		Very pleasant				
-5	-4	-3	-2	-1	0	1	2	3	4	5
LEVEL OF ATTENTION PAID TO MY BODY AND TO THE ENVIRONMENT										
None		A little		Moderate		Quite a lot		A lot		Too much
0		1		2		3		4		5

	PLEASANT/ UNPLEASANT OR NEUTRAL	ATTENTION PAID TO MY BODY	ATTENTION PAID TO THE ENVIRONMENT
24. You are exhausted and must continue studying or working	Choose a number to answer	Choose a number to answer	Choose a number to answer
25. You have to get up early but you want to continue sleeping	Choose a number to answer	Choose a number to answer	Choose a number to answer
26. You want to do something but you are unable to because you are sick	Choose a number to answer	Choose a number to answer	Choose a number to answer
27. You are very interested during a conversation with an important person but you have a terrible headache	Choose a number to answer	Choose a number to answer	Choose a number to answer

ANNEX N°3: Socio-Medical questionnaire and BSI-SOM scale. Spanish and German versions.

ENCUESTA SOCIOMÉDICA

FECHA: / /

I. Antecedentes Personales

1) **Género: Masculino**

Femenino

2) **Edad:** _____ **años**

3) **Si es mujer, ¿Se encuentra Ud. embarazada?**

SÍ

NO

4) **Fecha último embarazo, año:** _____

5) **¿En qué país nació?**

Seleccione **sólo una** de las siguientes opciones:

Chile

Otro

6) **¿En qué idioma se crió?**

Seleccione **sólo una** de las opciones:

Español

Otro idioma

Español y otro idioma

7) **¿Ha vivido la mayor parte de su vida en Chile? SÍ _____ NO _____**

8) Nivel de Educación alcanzado (el nivel más alto alcanzado):

Educación Básica Completa	
Educación Básica Incompleta	
Educación Media Completa	
Educación Media Incompleta	
Educación Técnica Completa	
Educación Técnica Incompleta	
Educación Universitaria Completa	
Educación Universitaria Incompleta	
Estudios de Post-Grado incompletos	
Estudios de Post-Grado completos	

9) ¿Cuál es el ingreso mensual líquido contando el total de los ingresos de las personas laboralmente activas de su grupo familiar?

- Menos de \$ 191.000 _____
- Entre \$191.000 y \$330.000 _____
- Entre \$330.000 y \$480.000 _____
- Entre \$480.000 y \$715.000 _____
- Entre \$715.000 y \$1.850.000 _____
- Más de \$1.850.000 _____

10) Anteriormente, ¿Ha presentado problemas relacionados con su conducta alimentaria? (marque con una cruz la que corresponda)

Restringir su alimentación en forma severa (ya sea en cantidad o eliminación de alimentos específicos de la dieta) y/o prolongada (ayunos) con el fin de controlar el peso	
Descontroles alimentarios o comilonas	
Vómitos después de comer una cantidad que se considera excesiva o después de comer alimentos que puedan “engordar”	
Uso de laxantes, diuréticos u otros (medicinas naturales) con el fin de controlar su peso	
Realizar ejercicio en exceso con el fin de controlar su peso	
Sentir que el peso o la comida “domina” su vida	

11) ¿Ha recibido tratamiento por problemas relacionados con su conducta alimentaria (restringir su alimentación en forma severa y prolongada, comilonas, vómitos, uso de laxantes u otros con el fin de controlar el peso)?

NO

SÍ, ¿Qué año? _____

12) ¿Presenta Ud. algún tipo de minusvalía o discapacidad física?

SÍ

NO

13) Durante su vida, ¿Ha sufrido algún tipo de cambio físico importante debido a:

- Accidente
- Enfermedad (que no sea un Trastorno Alimentario)
- Cirugía (cirugía plástica, bypass gástrico, banda o manga gástrica u otros)
- No ha sufrido ningún cambio importante

14) De haber sufrido algún cambio físico importante, ¿Hace cuánto tiempo?:

- En el último año
- Hace dos años o más
- Hace 5 años o más

15) Por favor escoja la alternativa que más se ajuste a su estilo de vida:

	Nunca	Muy pocas veces	Algunas veces	Frecuente mente	Siempre
-Realizo Actividad física en mi vida cotidiana cada vez que puedo (subir y bajar escaleras, caminar en vez de usar el automóvil o bus, labores de la casa, jardín, etc.)					
-Practico algún tipo de deporte al menos dos veces por semana (correr, andar en bicicleta, ir al gimnasio, natación, pilates, yoga, etc.)					
-Practico algún deporte de alto rendimiento con fines competitivos (entrenamiento para competir en atletismo, voley-ball, gimnasia, natación o cualquier otro deporte.)					

BSI-SOM SCALE

A continuación le presentamos una lista de problemas y molestias que a veces tiene la gente.

Lea cada uno de ellos y marque su respuesta con una cruz en la casilla correspondiente, pensando en cómo se sintió, en qué medida ese problema le ha preocupado o molestado durante la última semana (7 días).

Tiene cinco (5) posibilidades de respuesta:

NADA- MUY POCO - POCO - BASTANTE - MUCHO.

	Nada	Poco	Más o menos	Bastante	Mucho
1. Desmayos o mareos.					
2. Dolores en el corazón o en el pecho.					
3. Náuseas o malestar estomacal.					
4. Dificultades para respirar.					
5. Ataques de frío o calor.					
6. Adormecimiento u hormigueos en diferentes partes del cuerpo.					
7. Sensación de debilidad en diferentes partes del cuerpo.					

6) Falls Sie weiblich sind: Sind Sie schwanger?

JA

NEIN

Zeitpunkt der letzten Schwangerschaft (Jahr): _____

7) Wo sind Sie geboren? (Wählen Sie nur eine Antwort)

Deutschland

in einem anderen Land

8) Mit welcher Sprache sind Sie aufgewachsen? (Wählen Sie nur eine Antwort)

Deutsch

Deutsch und eine andere Sprache

eine andere Sprache

9) Haben Sie die meiste Zeit Ihres Lebens in Deutschland verbracht?

JA

NEIN

10) Welcher ist Ihr höchster Bildungsabschluss?

Hauptschulabschluss

Hauptschule ohne Abschluss

Realschulabschluss/Abitur

Realschule ohne Abschluss

- Berufsausbildung mit Abschluss
- Berufsausbildung ohne Abschluss
- Hochschulabschluss
- Hochschulstudium ohne Abschluss
- Weiterführendes Studium, ohne Abschluss
- Weiterführendes Studium mit Abschluss

11) Wie viele Jahre formeller Bildung haben Sie insgesamt durchlaufen?
 ___ Jahre

12) Aktuelle Berufssituation:

1	Bezahlte Ganztagsbeschäftigung	
2	Bezahlte Halbtagsbeschäftigung	
3	Bezahlte unregelmäßige Beschäftigung	
4	Hausfrau (ohne Bezahlung)	
5	Vollzeitstudent	
6	Teilzeitstudent mit bezahlter Nebenbeschäftigung	
7	Wehrdienst / FSJ	
8	Arbeitssuchend oder arbeitslos	
9	Pensioniert / in Rente	
10	Andere	

13) Wie hoch ist das monatliche Netto-Familieneinkommen?

- Weniger als 750 € _____
- Zwischen 750 € und 1500 € _____
- Zwischen 1500 € und 2250 € _____
- Zwischen 2250 € und 3000 € . _____
- Zwischen 3000 € und 4500 €. _____
- Zwischen 4500 € und 6500 €. _____
- Mehr als 6500 €. _____

14) Litten Sie schon einmal an einer psychischen oder psychiatrischen Erkrankung?

- NEIN
- JA. Bitte machen Sie nachfolgend genauere Angaben:

a) Beschreibung der Symptome oder Probleme: _____

b) Art der Behandlung (markieren Sie alles, was zutrifft)

- a. Psychotherapeutisch _____
- b. Psychiatrisch _____
- c. Neurologisch _____
- d. Andere _____
- e. Keine _____

Beginn (Datum): _____ Noch andauernd?: SI _____ NO _____

Ende (Datum): _____

15) Nehmen Sie ein vom Arzt verordnetes Medikament?

- NEIN
- JA. Bitte angeben welche: _____

16) Nehmen Sie Medikamente/Drogen ohne ärztliche Verordnung ein?

- NEIN
- JA. Geben Sie bitte an:
 - Welche: _____
 - Wie oft?
 - Monatlich _____
 - Wöchentlich _____
 - Täglich _____

17) Haben Sie irgendeine Körperliche Behinderung?

- JA
- NEIN

18) Haben Sie in Ihrem Leben bisher irgendeine bedeutende körperliche Veränderung erlebt durch:

- einen Unfall
 - eine Krankheit (keine Essstörung)
 - chirurgische Eingriffe (plastische Chirurgie, Magenverkleinerung, etc.)
 - keine bedeutende körperliche Veränderung
- Wann haben Sie diese Veränderung erlebt?
- Im letzten Jahr
 - Vor zwei Jahren oder mehr
 - Vor 5 Jahren oder mehr

19) Hatten Sie im Laufe der letzten 6 Monate Beschwerden oder das Gefühl, möglicherweise eine ernsthafte Krankheit zu haben, obwohl die Ärzte bei Ihnen nichts finden konnten?

- JA
- NEIN

20) Wählen Sie bitte die Antwortalternative, die Ihren Lebensstil am besten widerspiegelt:

	Nie	Selten	Manchmal	Häufig	Immer
-Ich führe immer wenn möglich alltägliche körperliche Aktivitäten durch (Treppensteigen, laufen statt Auto- oder Busfahren, Hausarbeit, Gartenarbeit, etc.)					
-Ich treibe wenigstens zweimal die Woche Sport (Laufen, Fahrradfahren, Fitnesscenter, Schwimmen, Gymnastik, Yoga usf..)					
-Ich schätze mich selbst als Hochleistungssportler(in) ein (ich trainiere für Wettkämpfe in Leichtathletik, Volleyball, Schwimmen oder anderen Sportarten.)					

BSI-SOM SCALE

Sie finden nachstehend eine Liste von Problemen und Beschwerden, die man manchmal hat. Bitte lesen Sie jede Frage einzeln sorgfältig durch und entscheiden Sie, wie stark Sie durch diese Beschwerden gestört oder bedrängt worden sind, und zwar während der vergangenen sieben Tage bis heute. Überlegen Sie bitte nicht erst, welche Antwort "den besten Eindruck" machen könnte, sondern antworten Sie so, wie es für Sie persönlich zutrifft. Machen Sie bitte hinter jeder Frage ein Kreuz bei der für Sie am besten zutreffenden Antwort. Bitte beantworten Sie jede Frage!

	Überhaupt nicht	Ein wenig	Ziemlich	Stark	Sehr stark
1. Ohnmachts- und Schwindelgefühlen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Herz- oder Brustschmerzen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Übelkeit oder Magenverstimmung.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Schwierigkeiten beim Atmen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Hitzewallungen oder Kälteschauern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Taubheit oder Kribbeln in einzelnen Körperteilen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Schwächegefühl in einzelnen Körperteilen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ANNEX N°4: Self-Body Connection Scale (SBC). Measurement used for convergent validation of EBEQ. English and Spanish versions.

S B C

Study Number: _____

Date: _____

Instructions:

This questionnaire asks about your body awareness and your response to body awareness.

For each statement please check the box that best answers the way you generally feel.

There are no right answers, please answer as truthfully as you can.

There are two questions about sexual activity; please consider all sexual activity including self-stimulation. If you do not engage in sexual activity, please leave these questions blank.

Please consider the past two months as the time frame for your response.

	Not at all 0	A little bit 1	Some of the time 2	Most of the time 3	All of the time 4
1. If there is tension in my body, I am aware of the tension					
2. It is difficult for me to identify my emotions					
3. I notice that my breathing becomes shallow when I am nervous					
4. I notice my emotional response to caring touch					
5. My body feels frozen, as though numb, during uncomfortable situations					
6. I notice how my body changes when I am angry					
7. I feel like I am looking at my body from outside of my body					
8. I am aware of internal sensation during sexual activity					
9. I can feel my breath travel through my body when I exhale deeply					
10. I feel separated from my body					
11. It is hard for me to express certain emotions					
12. I take cues from my body to help me understand how I feel					
13. When I am physically uncomfortable, I think about what might have caused the discomfort					
14. I listen for information from my body about my emotional state					
15. When I am stressed, I notice the stress in my body					
16. I distract myself from feelings of physical discomfort					
17. When I am tense, I take note of where the tension is located in my body					
18. I notice that my body feels different after a peaceful experience					
19. I feel separated from my body when I am engaged in sexual activity					
20. It is difficult for me to pay attention to my emotions					

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SBC

Instrucciones:

Este cuestionario pregunta acerca de la conciencia que tiene de su cuerpo y su respuesta a dicha conciencia corporal. Para cada afirmación por favor marque el casillero que mejor responde la forma en que Ud. generalmente se siente.

No existen respuestas incorrectas, por favor responda honestamente.

Hay dos preguntas sobre su actividad sexual; por favor considere toda actividad sexual incluyendo la auto-estimulación. Si ud. no está sexualmente activa, por favor deje esas preguntas en blanco.

Por favor, considere los últimos dos meses como el marco de tiempo para dar sus respuestas.

	En absoluto o nunca 0	Un poco 1	Algunas Veces 2	La mayoría del tiempo 3	Todo el tiempo 4
1. Si hay una tensión en mi cuerpo, estoy consciente de esa tensión					
2. Me cuesta identificar mis emociones					
3. Noto que no respiro profundamente cuando estoy nervioso(a)					
4. Me doy cuenta de mi respuesta emocional a las caricias					
5. Siento que mi cuerpo se congela, como si estuviera adormecido durante situaciones incómodas					
6. Me doy cuenta cómo mi cuerpo cambia cuando estoy enojado(a)					
7. Siento como si observara mi cuerpo desde afuera					
8. Estoy consciente de la sensación interna durante la actividad sexual					
9. Puedo sentir mi respiración pasar a través de mi cuerpo cuando exhalo profundamente					
10. Me siento separado(a) de mi cuerpo					
11. Me cuesta expresar ciertas emociones					
12. Tomo en cuenta las señales de mi cuerpo para entender cómo me siento					
13. Cuando me siento físicamente incómodo(a), pienso qué puede haber causado esa incomodidad					
14. Escucho la información de mi cuerpo acerca de mi estado emocional					
15. Cuando estoy estresado(a), noto el estrés en mi cuerpo					
16. Me distraigo de los sentimientos de incomodidad física					
17. Cuando estoy tenso(a), presto atención a dónde se concentra la tensión en mi cuerpo					
18. Noto que mi cuerpo se siente diferente después de una experiencia apacible					
19. Me siento separado(a) de mi cuerpo durante la actividad sexual					
20. Me cuesta prestar atención a mis emociones					

ANNEX N°5: Measurements of Clinical variables and Cultural Variables.

CESD

SEXO: [] Masculino [] Femenino

EDAD: [_____] años

CENTRO:

Utilizando la escala que se presenta a continuación, encierre en un círculo el número que mejor describa **QUE TAN FRECUENTEMENTE** usted se sintió de esa manera durante la última semana.

- 0 = Rara vez o ninguna vez (1 día o menos)
 1 = Alguna vez o unas pocas veces (1 a 2 días)
 2 = Ocasionalmente o varias veces (3 a 4 días)
 3 = La mayor parte del tiempo (5 a 7 días)

DURANTE LA SEMANA PASADA:

	1 día o menos	1 – 2 días	3 – 4 días	5 – 7 días
1. Me enojé por cosas que habitualmente no me enojan.	0	1	2	3
2. Sentí pocas ganas de comer; tuve mal apetito.	0	1	2	3
3. Sentí que no podía dejar de estar triste, incluso con la ayuda de mi familia o amigos.	0	1	2	3
4. Sentí que era tan valioso como los demás.	0	1	2	3
5. Tuve dificultades para concentrarme en lo que estaba haciendo.	0	1	2	3
6. Me sentí deprimido.	0	1	2	3
7. Sentí que todo lo que hacía era un esfuerzo.	0	1	2	3
8. Me sentí esperanzado respecto al futuro.	0	1	2	3
9. Pensé que mi vida había sido un fracaso.	0	1	2	3
10. Sentí miedo.	0	1	2	3
11. Mi sueño fue poco reparador.	0	1	2	3
12. Fui feliz.	0	1	2	3
13. Hablé menos de lo habitual.	0	1	2	3
14. Me sentí solo.	0	1	2	3
15. Las personas fueron poco amigables conmigo.	0	1	2	3
16. Disfruté de la vida.	0	1	2	3
17. Tuve ataques de llanto.	0	1	2	3
18. Me sentí triste.	0	1	2	3
19. Sentí que no le gustaba a la gente.	0	1	2	3
20. Sentí que no podía continuar.	0	1	2	3

CESD. Bitte kreuzen Sie bei den folgenden Aussagen die Antwort an, die Ihrem Befinden während der letzten Woche am besten entspricht/entsprochen hat.

Antworten: 0 selten oder überhaupt nicht (weniger als 1 Tag)
 1 manchmal (1 bis 2 Tage lang)
 2 öfters (3 bis 4 Tage lang)
 3 meistens, die ganze Zeit (5 bis 7 Tage lang)

Während der letzten Woche...		selten oder überhaupt nicht (weniger als 1 Tag)	manchmal (1 bis 2 Tage)	öfters (3 - 4 Tage)	meistens, die ganze Zeit (5 - 7 Tage)
1.	haben mich Dinge beunruhigt, die mir sonst nichts machen	0	1	2	3
2.	hatte ich kaum Appetit	0	1	2	3
3.	konnte ich meine trübsinnige Laune nicht loswerden, obwohl mich meine Freunde/Familie versuchten aufzumuntern	0	1	2	3
4.	kam ich mir genauso gut vor wie andere	0	1	2	3
5.	hatte ich Mühe, mich zu konzentrieren	0	1	2	3
6.	war ich deprimiert/niedergeschlagen	0	1	2	3
7.	war alles anstrengend für mich	0	1	2	3
8.	dachte ich voller Hoffnung an die Zukunft	0	1	2	3
9.	dachte ich, mein Leben ist ein einziger Fehlschlag	0	1	2	3
10.	hatte ich oft Angst	0	1	2	3
11.	habe ich schlecht geschlafen	0	1	2	3
12.	war ich fröhlich gestimmt	0	1	2	3
13.	habe ich weniger als sonst geredet	0	1	2	3
14.	fühlte ich mich einsam	0	1	2	3
15.	waren die Leute unfreundlich zu mir	0	1	2	3

Während der letzten Woche...		selten oder überhaupt nicht (weniger als 1 Tag)	manchmal (1 bis 2 Tage)	öfters (3 - 4 Tage)	meistens, die ganze Zeit (5 - 7 Tage)
16.	habe ich das Leben genossen	0	1	2	3
17.	musste ich weinen	0	1	2	3
18.	war ich traurig	0	1	2	3
19.	hatte ich das Gefühl, dass die Leute mich nicht leiden können	0	1	2	3
20.	konnte ich mich zu nichts aufraffen	0	1	2	3

EDEQ - CUESTIONARIO DE ALIMENTACIÓN

Instrucciones: Las siguientes preguntas se refieren exclusivamente (solamente) a las últimas cuatro semanas (últimos 28). Por favor, lea cuidadosamente cada pregunta. Por favor, responda todas las preguntas. Gracias.

Preguntas 1 a 12: Por favor marque su opción encerrando en un círculo el número correspondiente a la derecha. Recuerde que las preguntas sólo se refieren a las últimas cuatro semanas (últimos 28 días).

En cuántos de los últimos 28 días....	Ningún día	1-5 días	6-12 días	13-15 días	16-22 días	23-27 días	Todos los días
1. ¿Has <u>intentado</u> deliberadamente limitar la cantidad de alimento que comes para influir en tu figura o peso (con o sin éxito)?	0	1	2	3	4	5	6
2. ¿Has pasado largos períodos de tiempo (8 horas seguidas o más) sin comer nada con el fin de influir en tu figura o peso?	0	1	2	3	4	5	6
3. ¿Has intentado excluir de tu dieta algún alimento que te gusta con el fin de influir en tu figura o peso (con o sin éxito)?	0	1	2	3	4	5	6
4. ¿Has intentado seguir reglas definidas respecto de tu alimentación (por ejemplo, un límite de calorías) con el fin de influir en tu figura o peso (con o sin éxito)?	0	1	2	3	4	5	6
5. ¿Has tenido un claro deseo de tener el estómago vacío con el fin de influir en tu figura o peso?	0	1	2	3	4	5	6
6. ¿Has tenido un claro deseo de tener el abdomen totalmente plano?	0	1	2	3	4	5	6
7. Pensar en <u>comida, comer o calorías</u> , ¿Ha dificultado tu concentración en cosas de tu interés (por ejemplo, trabajar, seguir una conversación o leer)?	0	1	2	3	4	5	6
8. Pensar en <u>la figura o el peso</u> , ¿Ha dificultado tu concentración en cosas de tu interés (por ejemplo, trabajar, seguir una conversación o leer)?	0	1	2	3	4	5	6
9. ¿Has tenido un claro miedo a perder el control sobre la comida?	0	1	2	3	4	5	6
10. ¿Has tenido un claro miedo a subir de peso?	0	1	2	3	4	5	6

En cuántos de los últimos 28 días....	Ningún día	1-5 días	6-12 días	13-15 días	16-22 días	23-27 días	Todos los días
11. ¿Te has sentido gorda(o)?	0	1	2	3	4	5	6
12. ¿Has tenido un fuerte deseo de perder peso?	0	1	2	3	4	5	6

Preguntas 13-18: Por favor rellene con el número que corresponda en los espacios a la derecha. Recuerde que las preguntas se refieren sólo a las cuatro semanas anteriores (28 días previos).

Dentro de las últimas cuatro semanas (28 días).....

13. Dentro de los últimos 28 días, ¿Cuántas veces has comido lo que otros considerarían un cantidad inusual de comida (para las circunstancias)?

.....

14. ¿Cuántas de esas veces has tenido la sensación de perder el control de tu alimentación (en el momento en que estabas comiendo)?

.....

15. Dentro de los últimos 28 días, ¿Cuántos **DÍAS** ocurrieron esos episodios de sobreingesta (comilona) (por ejemplo, comiste una cantidad inusual de comida y tuviste la sensación de perder el control al mismo tiempo?

.....

16. Dentro de los últimos 28 días, ¿Cuántas veces te provocaste vómito como forma de controlar tu figura o tu peso?

.....

17. Dentro de los últimos 28 días, ¿Cuántas veces tomaste laxantes como forma de controlar tu figura o tu peso?

.....

18. Dentro de los últimos 28 días, ¿Cuántas veces has realizado ejercicio físico de forma “exigente” o “compulsiva” con el fin de controlar tu peso, figura o cantidad de grasa, o de quemar calorías?

.....

Preguntas 19 a 21: Porfavor encierre en un círculo el número correspondiente. Para responder estas preguntas, por favor tome en cuenta que el término “comilona” significa lo que otros podrían considerar como una cantidad inusual de comida para las circunstancias, acompañado de una sensación de pérdida de control sobre la ingesta de comida.

	Ning ún día	1-5 días	6-12 días	13-15 días	16-22 días	23-27 días	Todos los días
19. Dentro de los últimos 28 días, ¿Cuántos días has comido en secreto (por ejemplo: furtivamente)? ...No cuentes los episodios de Comilona.	0	1	2	3	4	5	6

	Ningu na vez	Pocas veces	Menos de la mitad	La mitad de las veces	Más de la mitad	La mayorí a del tiempo	Todos los días
20. ¿Qué porcentaje de las veces en que has comido te has sentido culpable (sentir que hiciste algo malo) debido al impacto en tu figura o en tu peso? .....No cuentes los episodios de comilona	0	1	2	3	4	5	6

	NADA	UN POCO	MODERADAMENTE	MUCHO			
21. Dentro de los últimos 28 días, ¿Qué tan preocupado has estado de que otros te vean comer? .....No cuentes los episodios de comilona	0	1	2	3	4	5	6

Preguntas 22 a 28: Por favor encierre en un círculo el número correspondiente a la derecha. Recuerde que las preguntas se refieren sólo a las últimas cuatro semanas (28 días).

Dentro de los últimos 28 días.....	NADA	UN POCO	MODERADAMENTE	MUCHO			
22. ¿Ha influido tu <u>peso</u> en cómo te evalúas (juzgas) como persona?	0	1	2	3	4	5	6
23. ¿Ha influido tu <u>figura</u> en cómo te evalúas (juzgas) como persona?	0	1	2	3	4	5	6
24. ¿Cuánto te afectaría si se te pidiera que te pesaras una vez a la semana (ni más ni menos a menudo) por las próximas cuatro semanas?	0	1	2	3	4	5	6
25. ¿Qué tan insatisfecha (o) has estado con tu <u>peso</u> ?	0	1	2	3	4	5	6
26. ¿Qué tan insatisfecha(o) has estado con tu <u>figura</u> ?	0	1	2	3	4	5	6
27. ¿Qué tan incómoda(o) te has sentido al ver tu cuerpo (por ejemplo, ver tu cuerpo en el espejo, en una vitrina, al desvestirte o al ducharte)?	0	1	2	3	4	5	6
28. ¿Qué tan incómoda(o) te has sentido cuando otros han visto tu cuerpo o figura (por ejemplo, en camarines, al nadar o al usar ropa ajustada)?	0	1	2	3	4	5	6

¿Cuál es tu peso actual? (porfavor haz tu mejor estimación)

¿Cuál es tu altura? (porfavor haz tu mejor estimación)

Si eres mujer: Dentro de los últimos tres o cuatro meses, ¿Se han interrumpido tus menstruaciones?

De ser así, ¿Cuántos meses?

¿Has estado tomando anticonceptivos?

EDEQ - Die folgenden Fragen beziehen sich ausschließlich auf die letzten vier Wochen (28 Tage). Bitte lesen Sie jede Frage sorgfältig durch und beantworten Sie alle Fragen. Vielen Dank!

AN WIE VIELEN DER LETZEN 28 TAGE...	Kein Tag	1-5 Tage	6-12 Tage	13-15 Tage	16-22 Tage	23-27 Tage	Jeden Tag
1. Haben Sie bewusst <u>versucht</u> , die Nahrungsmenge, die Sie essen, zu begrenzen, um Ihre Figur oder Ihr Gewicht zu beeinflussen (unabhängig davon, ob es Ihnen tatsächlich gelungen ist)?							
2. Haben Sie über längere Zeitspannen (8 Stunden oder mehr) überhaupt nichts gegessen, um Ihre Figur oder Ihr Gewicht zu beeinflussen?							
3. Haben Sie <u>versucht</u> , Nahrungsmittel, die Sie mögen, von Ihrer Ernährung auszuschließen, um Ihre Figur oder Ihr Gewicht zu beeinflussen (unabhängig davon, ob es Ihnen tatsächlich gelungen ist)?							
4. Haben Sie <u>versucht</u> , festgelegte Regeln hinsichtlich Ihres Essens (z.B. eine Kaloriengrenze) zu befolgen, um Ihre Figur oder Ihr Gewicht zu beeinflussen (unabhängig davon, ob es Ihnen tatsächlich gelungen ist)?							
5. Hatten Sie den deutlichen Wunsch, einen <u>leeren</u> Magen zu haben, mit dem Ziel, Ihre Figur oder Ihr Gewicht zu beeinflussen?							
6. Hatten Sie den deutlichen Wunsch, einen <u>völlig flachen</u> Bauch zu haben?							
7. Hat das Nachdenken über <u>Nahrung, Essen oder Kalorien</u> es Ihnen sehr schwer gemacht, sich auf Dinge zu konzentrieren, die Sie interessieren (z.B. arbeiten, einem Gespräch folgen oder lesen)?							
8. Hat das Nachdenken über <u>Figur oder Gewicht</u> es Ihnen sehr schwer gemacht, sich auf Dinge zu konzentrieren, die Sie interessieren (z.B. arbeiten, einem Gespräch folgen oder lesen)?							
9. Hatten Sie eine deutliche Angst, die Kontrolle über das Essen zu verlieren?							
10. Hatten Sie eine deutliche Angst, dass Sie an Gewicht zunehmen könnten?							
11. Haben Sie sich dick gefühlt?							
12. Hatten Sie einen starken Wunsch abzunehmen?							

WÄHREND DER LETZTEN VIER WOCHEN (28 TAGE) ...

13. <u>Wie oft</u> haben Sie während der letzten 28 Tage eine Nahrungsmenge gegessen, die andere Menschen als <u>ungewöhnlich groß</u> ansehen würden (unter ähnlichen Umständen)?	.....	Mal
14. In wie vielen dieser Situationen, in denen Sie zu viel gegessen haben, hatten Sie das Gefühl, die Kontrolle über Ihr Essverhalten verloren zu haben (während des Essens)?	.....	Mal
15. An wie vielen TAGEN der letzten 28 Tage ist es vorgekommen, dass Sie eine ungewöhnlich große Nahrungsmenge gegessen haben <u>und</u> das Gefühl hatten, die Kontrolle über Ihr Essverhalten verloren zu haben?	.....	Tage
16. <u>Wie oft</u> haben Sie während der letzten 28 Tage Abführmittel eingenommen, um Ihre Figur	.....	Mal
17. <u>Wie oft</u> haben Sie während der letzten 28 Tage Abführmittel eingenommen, um Ihre Figur oder Ihr Gewicht zu kontrollieren?	.....	Mal
18. <u>Wie oft</u> haben Sie während der letzten 28 Tage in einer “getriebenen” oder “zwanghaften” Weise Sport getrieben, um Ihr Gewicht, Ihre Figur oder den Körperfettanteil zu kontrollieren oder Kalorien zu verbrennen?	.....	Mal

Bitte beachten Sie, dass für diese Fragen der Begriff “Essanfall” bedeutet, eine Nahrungsmenge zu essen, die andere Menschen unter ähnlichen Umständen als ungewöhnlich groß ansehen würden, begleitet von einem Gefühl des Kontrollverlusts über das Essverhalten.

WÄHREND DER LETZTEN VIER WOCHEN (28 TAGE) ...

	Kein Tag	1-5 Tage	6-12 Tage	13-15 Tage	16-22 Tage	23-27 Tage	Jeden Tag
19. An wie vielen der letzten 28 Tage haben Sie heimlich (d.h. im Verborgenen) gegessen? (Zählen Sie Essanfälle nicht mit)	0	1	2	3	4	5	6
20. In wie vielen der Situationen, in denen Sie gegessen haben, hatten Sie wegen der Auswirkungen auf Ihre Figure oder Ihr Gewicht Schuldgefühle (d.h. das Gefühl, etwas Falsches getan zu haben)? (Zählen Sie Essanfälle nicht mit)	niemals	In Seltenen Fällen	in weniger als der Hälfte der Fälle	in der Hälfte der Fälle	in mehr als der Hälfte der Fälle	in den meisten Fällen	jedes Mal
	0	1	2	3	4	5	6
21. Wie beunruhigt waren Sie während der letzten 28 Tage, wenn andere Menschen Sie essen sahen? (Zählen Sie Essanfälle nicht mit)	überhaupt nicht		leicht		mäßig		deutlich
	0	1	2	3	4	5	6

Denken Sie daran, dass sich die Fragen nur auf die letzten 4 Wochen (28 Tage) beziehen.

WÄHREND DER LETZTEN VIER WOCHEN (28 TAGE) ...	Über- haupt nicht	1	2	3	4	5	6	leicht	mäßig	deut- lich
22. Hat Ihr <u>Gewicht</u> einen Einfluss darauf gehabt, wie Sie über sich selbst als person denken (urteilen)?	0	1	2	3	4	5	6			
23. Hat Ihre <u>Figur</u> einen Einfluss darauf gehabt, wie Sie über sich selbst als person denken (urteilen)?	0	1	2	3	4	5	6			
24. Wie stark hätte es Sie aus der Fassung gebracht, wenn Sie aufgefordert worden wären, sich in den nächsten vier Wochen einmal pro Woche zu wiegen (nicht mehr oder weniger häufig)?	0	1	2	3	4	5	6			
25. Wie unzufrieden waren Sie mit Ihrem <u>Gewicht</u> ?	0	1	2	3	4	5	6			
26. Wie unzufrieden waren Si emit Ihrer <u>Figur</u> ?	0	1	2	3	4	5	6			
27. Wie unwohl haben Sie sich gefühlt, wenn Sie Ihren Körper gesehen haben (z. B. im Spiegel, Ihr Spiegelbild im Schaufenster, beim Ausziehen, Baden oder Duschen)?	0	1	2	3	4	5	6			
28. Wie unwohl haben Sie sich gefühlt, wenn andere Ihre Figur gesehen haben (z. B. in Gemeinschaftsumkleideräumen, beim Schwimmen oder beim Tragen enger Kleidung)?	0	1	2	3	4	5	6			

Wie viel wiegen Sie derzeit? (Bitte schätzen Sie so gut wie möglich.)
..... Kg

Wie groß sind Sie? (Bitte schätzen Sie so gut wie möglich)
..... m

Für Frauen: Ist Ihre Regelblutung während der letzten drei bis vier

Monate ausgeblieben? ja
..... nein

Wenn ja, wie viele Regelblutungen sind ausgeblieben?
.....

Haben Sie die "Pille" eingenommen? ja
..... nein

VIELEN DANK!

Translated by Patricia Moreno and Alexandra Jorge, M.A., Department of Psychology, University of California, Los Angeles. Contact patriciamoreno@ucla.edu or Annette Stanton astanton@ucla.edu.

BEQ

Por cada frase que sigue, por favor indique su nivel de acuerdo o desacuerdo llenando el espacio en frente de cada artículo con el número apropiado correspondiente a la siguiente escala de evaluación:

1 2 3 4 5 6 7
completamente neutro completamente
en desacuerdo de acuerdo

- ___ 1. Cuando siento emociones positivas, los demás pueden fácilmente ver exactamente lo que siento.
- ___ 2. A veces lloro mientras veo películas tristes.
- ___ 3. A menudo los demás no saben lo que estoy sintiendo.
- ___ 4. Me río en voz alta cuando alguien me cuenta un chiste que creo que es cómico.
- ___ 5. Se me hace difícil esconder mi miedo.
- ___ 6. Cuando estoy feliz, mis sentimientos se muestran.
- ___ 7. Mi cuerpo reacciona muy fuerte a situaciones emocionales.
- ___ 8. He aprendido que es mejor reprimir mi rabia que demostrarla.
- ___ 9. No importa como de nervioso/a o alterado/a esté, tiendo mantener una apariencia de estar calmado/a.
- ___ 10. Soy una persona expresiva emocionalmente.
- ___ 11. Tengo emociones fuertes.
- ___ 12. A veces soy incapaz de esconder mis emociones, aunque me gustaría.
- ___ 13. Cuando siento emociones negativas, los demás pueden fácilmente ver exactamente lo que estoy sintiendo.
- ___ 14. Ha habido veces en que no he podido dejar de llorar aunque traté de parar.
- ___ 15. Siento mis emociones fuertemente.
- ___ 16. Lo que siento esta escrito por toda mi cara.

BEQ

Bitte lesen Sie die folgenden Aussagen durch und geben Sie an, inwiefern Sie ihnen zustimmen bzw. sie ablehnen. Bitte tragen Sie vor jeder Aussage die entsprechende Zahl der folgenden Alternativen ein:

1	2	3	4	5	6	7
überhaupt nicht einverstanden			neutral			absolut einverstanden

1. ----- Immer wenn ich mich gut fühle, können andere leicht erkennen, wie es mir geht.
2. ----- Während trauriger Filme weine ich manchmal.
3. ----- Die Leute wissen oft nicht, was ich fühle.
4. ----- Wenn mir jemand einen lustigen Witz erzählt, muss ich laut lachen.
5. ----- Mir fällt es schwer, meine Angst zu verbergen.
6. ----- Wenn ich mich glücklich fühle, dann zeige ich es auch.
7. ----- Mein Körper reagiert stark auf emotionale Ereignisse.
8. ----- Ich habe gelernt, dass es besser ist, meinen Ärger zu unterdrücken.
9. ----- Egal wie aufgeregt oder nervös ich bin, mache ich immer einen ruhigen Eindruck.
10. ----- Ich bin ein emotional ausdrucksstarker Mensch.
11. ----- Ich habe starke Gefühle.
12. ----- Manchmal bin ich nicht in der Lage, meine Gefühle zu verbergen, auch wenn ich es möchte.
13. ----- Immer wenn ich mich schlecht fühle, können andere das leicht erkennen.
14. ----- Es gab Zeiten, in denen ich nicht in der Lage war, mit Weinen aufzuhören, obwohl ich es wollte.
15. ----- Ich erlebe meine Gefühle sehr stark.
16. ----- Was ich fühle, steht mir ins Gesicht geschrieben

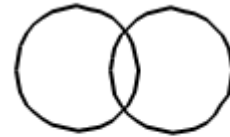
IOS- SCALE. 1. Bitte geben Sie an, welches der Bilder die Beziehung zu Ihrer engsten Freundin / Ihrem engsten Freund am besten beschreibt. Beachten Sie, dass jedes Bild eine Beziehung zwischen zwei Personen symbolisiert. Ein Kreis steht für Sie, während der andere Kreis für Ihren engsten Freund / Ihre engste Freundin steht.



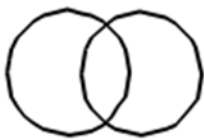
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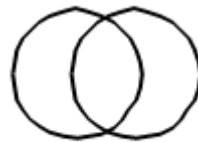
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(3)



(4)



(5)

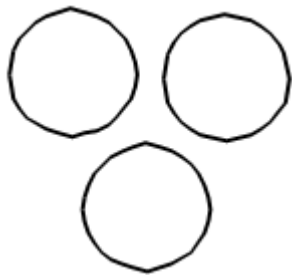


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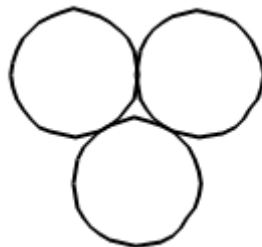


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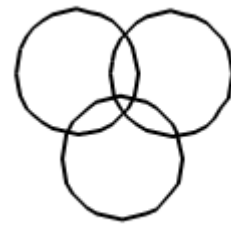
2. Bitte geben Sie an, welches der Bilder die Beziehung zu Ihren Familienmitgliedern (z.B. Eltern und Geschwistern) am besten beschreibt. Beachten Sie, dass jedes Bild eine Beziehung zwischen drei Personen symbolisiert. Ein Kreis steht für Sie, während die anderen Kreise für Ihre Familienmitglieder stehen.



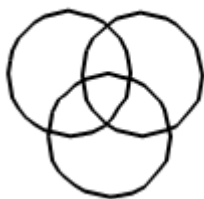
(1)



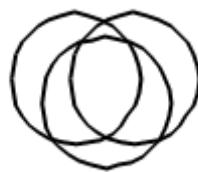
(2)



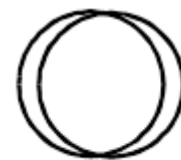
(3)



(4)



(5)

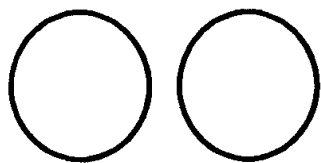


(6)

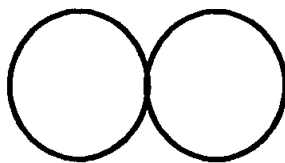


(7)

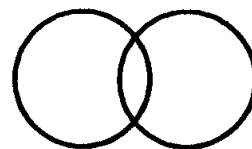
IOS- SCALE. 1. Por favor, marque la imagen que mejor describa la relación con su amigo(a) más cercano/a. Tenga en cuenta que cada imagen simboliza una relación que implica a dos personas. Un círculo lo representa usted, mientras que el otro círculo representa a su amigo(a) que siente más cercano/a.



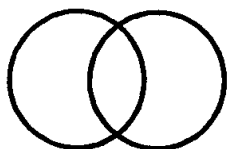
(1)



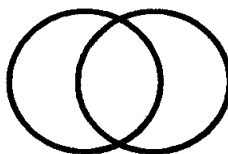
(2)



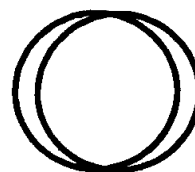
(3)



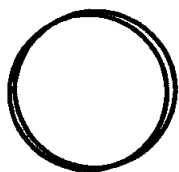
(4)



(5)

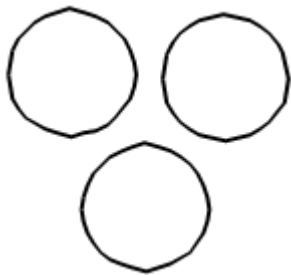


(6)

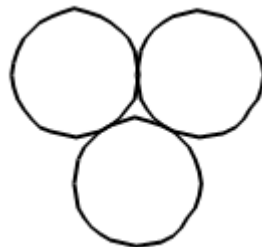


(7)

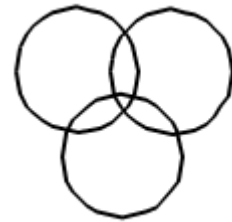
2. Por favor, indique la imagen que mejor describa la relación con los miembros de su familia (por ejemplo: padres y hermanos). Tome en cuenta que cada figura simboliza una relación entre tres personas. Un círculo lo representa a Ud. Y los otros círculos representan los miembros de su familia.



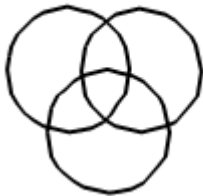
(1)



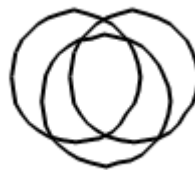
(2)



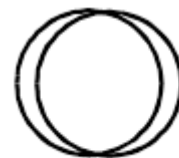
(3)



(4)



(5)



(6)



(7)

ANNEX N° 6: Erklärung gemäß § 8 Abs. 1 Buchst. b) und c) der Promotionsordnung der Fakultät für Verhaltens- und Empirische Kulturwissenschaften

**Promotionsausschuss der Fakultät für Verhaltens- und Empirische Kulturwissenschaften
der Ruprecht-Karls-Universität Heidelberg**
Doctoral Committee of the Faculty of Behavioural and Cultural Studies, of Heidelberg University

**Erklärung gemäß § 8 Abs. 1 Buchst. b) der Promotionsordnung der Universität Heidelberg
für die Fakultät für Verhaltens- und Empirische Kulturwissenschaften**
Declaration in accordance to § 8 (1) b) and § 8 (1) c) of the doctoral degree regulation of Heidelberg University, Faculty of Behavioural and Cultural Studies

Ich erkläre, dass ich die vorgelegte Dissertation selbstständig angefertigt, nur die angegebenen Hilfsmittel benutzt und die Zitate gekennzeichnet habe.
I declare that I have made the submitted dissertation independently, using only the specified tools and have correctly marked all quotations.

Erklärung gemäß § 8 Abs. 1 Buchst. c) der Promotionsordnung der Universität Heidelberg für die Fakultät für Verhaltens- und Empirische Kulturwissenschaften

Ich erkläre, dass ich die vorgelegte Dissertation in dieser oder einer anderen Form nicht anderweitig als Prüfungsarbeit verwendet oder einer anderen Fakultät als Dissertation vorgelegt habe.
I declare that I did not use the submitted dissertation in this or any other form as an examination paper until now and that I did not submit it in another faculty.

Vorname Nachname
First name Family name _____ María Isabel Gaete Celis _____

Datum, Unterschrift
Date, Signature 04.10.2016 _____

