Lived body and the Other’s gaze: a phenomenological perspective on feeding and eating disorders

Milena Mancini1 · Cecilia Maria Esposito2

Received: 13 October 2020 / Accepted: 29 December 2020 / Published online: 5 February 2021
© The Author(s) 2021

Abstract
According to the phenomenological perspective, the lived body disorder is a core feature of feeding and eating disorders (FEDs). Persons with FEDs experience their own body first of all as an object looked by another person, rather than coenaesthetically or from a first-person perspective. In particular, the main features of this disorder are: alienation from the own body and from the own emotions, disgust for it, shame, and an exaggerated preoccupation for the way in which one appears to the others. Phenomenological research has recently highlighted that the gaze of the Other plays an important role. Because persons with FEDs cannot have an experience of their own body from within or coenaesthetically, they need to apprehend their own body from outside through the gaze of the Other. This way of apprehending one’s own body when it is looked by another person is called by Sartre the ‘lived body-for-others’. Normally, the constitution of one’s own body, and consequently of one’s own Self and identity depends on the dialectic integration between the first-person apprehension of one’s body (lived body) that it is based on coenaesthesia, and the third-person one, that it is based on the sense of sight (lived-body-for-others). When the dialectic is unbalanced toward the pole of the lived-body-for-others, experienced from without, the symptom occurs. Starting from these clinical observations, the so-called Optical-Coenaesthetic Disproportion model has been developed. In this paper, we describe this model, its philosophical and clinical foundations, and finally its clinical implication and its relationship with other disciplines, i.e., neurosciences. Level of evidence: V.

Keywords Eating disorders · Lived body · Optical-coenaesthetic disproportion · Phenomenology · Psychotherapy

Introduction
Feeding and eating disorders (FEDs) are a series of disorders extremely frequent in our time, on the bases of which have been described disturbances in embodiment and in resulting identity-shaping process [1, 2]. Although classical nosography mainly emphasizes the behavioural aspect of these disorders, clinical observation shows that FEDs cannot be reduced only to behavioural disturbances, but they contain deeper experiential alterations [2]. In fact, common clinical features are the difficulty in perceiving emotions, the anomalies of body experience, the search for an ideal body image, as well as the instability of the identity construct [3, 4]. Starting from these observations, clinical phenomenology has not just the prerogative to look only at behaviours, but also to identify the experience that underlies them. In fact, it does not appear as a pure clinical description, but provide the conditions for establishing pathogenetic models. What unifies the various clinical manifestations of these disorders is a common psychopathological nucleus—an abnormal experience of corporeality [4–8]. Lacking the balance between body subject and body object and between body experienced from a first-person perspective and body experienced from a third-person perspective, persons affected by FEDs find themselves suspended in an unresolved dialectic that generates the symptom. In fact, a specific kind of lived body disorder demonstrated both from a clinical and neuroscientific point of view, appears the central pheno-phenotype on which these disorders are built [9].

Specifically, to understand how these experiences of one’s own body hold together, the Optical-Coenaesthetic Disproportion Model has been developed [10]. According to this
hypothesis, FEDs derive from an anomalous coenaesthetic apprehension of one’s body, which is perceived fragmentary and shifting, constituting an unstable experience of the Self. This original alteration results in the compensatory hypertrophy of the optical apprehension of the Self, which is conveyed by the gaze of the other, and reduces subjectivity to the body object. The gaze of the other, therefore, performs the function of a visual prosthesis that allows these subjects to feel their own body, whose experience from within is lacking [11].

Understanding how persons affected by FEDs experience their body opens the possibility of intervening therapeutically not only on behaviours, but also on those experiences that give rise to behaviours themselves [12].

**Dimensions of corporeality in FEDs**

Phenomenology, with the contribution of philosophers as well as psychopathologists and clinicians, has allowed to deepen the theme of the corporeality and the experience of the person in this regard, opening fruitful perspectives from a clinical point of view [13, 14].

Our body lies in a situation of constitutive ambiguity [15], since the experience that we have is based on the dialectic between body subject and body object and between subjectivation and reification. On one hand, it is experienced from within, as body subject, which corresponds to the body that we feel as ours, which we experience in first-person perspective, to the body-I-have. This body is the starting point and the inevitable point of view of all our experiences in the world, from which every process of subjectivation begins. It represents a body that we feel ours, in which we identify ourselves to the point of experiencing it as a simple physical extension of our will. The apprehension of its needs occurs on a pre-reflective level and expresses the spontaneity of our being-in-the-world [16].

On the other hand, our body is also experienced as a body object. In this sense, it is configured as something independent of our will, which can be objectified through biomedical measurements or—as we will see specifically in this paper—through the reification imposed by the gaze of the other [17]. This second experience of the body is often felt as constric ting, resistant to any attempt to modify it, not fully corresponding to what we wish of it. It is the body-I-am. This body object corresponds to an experience of corporeality which shows us it is contingency: a body that gets sick or tired, that weighs with respect to a will that would always want it ready and quick. The object-like experience of our body occurs in particular in the encounter with the other, which gives us an image of us crystallized in our body: the gaze of the other becomes something that limits us to our body object, forcing us to deal with the reification that this entails [17].

Husserl had already described the difference between Leib (lived body) and Körper (body object) [15], but a more complete development of these concepts will take place in French phenomenology, in particular in the works of Merleau-Ponty and Sartre. These two philosophers, although coming from the common assumption of Husserl’s perspective, have followed different paths, each one developing a particular aspect of his own thinking.

Merleau-Ponty is particularly responsible for the elucidation of the theme of the flesh (chair). The flesh corresponds to our body perceived from within, to that amalgam of experience that finds its primitive organization in the coenaesthetic apprehension of myself [16, 19]. Coenaesthesia is the global experience in which all the single bodily sensations are synthesised, the crossroads of all interoceptive sensibility on which self-consciousness is grounded, including the feeling of existing, of being a self, and of being separated from the external world [4, 10, 11, 19]. In FEDs, as we will see, the flesh is experienced as unstable and shifting. Being the flesh the foundation of our being-in-the-world, not feeling it or feeling it as evanescent means not belonging to the world. For this, it becomes necessary to find a new anchor in the world.

According to the Optical-Coenaesthetic Disproportion model, the hypertrophy of the optical experience of one’s own body responds to the lack of the coenaesthetic experience. Sartre introduces a third experiential dimension of the body, in addition to the body subject and the body object that is the lived-body-for-others. The body is conceived as an object-to-be-seen, vulnerable to the gaze of the other, as a mark of what is independent of our will but to which we are nevertheless subdued [20]. The gaze of the other, in Sartre’s perspective, is alienating and reifying, because it reduces me only to my visible body. However, the primitive and inevitable alienation conveyed by the gaze of the other is at the same time the only ground from which subjectivation can begin—according to the famous maxim with which “the important thing is not what has been done to us, but what we ourselves do with what has been done to us” [17]. The identity-making process, starting from the lived-body-for-others, then resolves itself into the balanced dialectic between body subject and body object.

The way I feel when I am seen by others (lived-body-for-others) may or may not correspond to the way that I feel my body in the first-person perspective (body subject) and in the third-person perspective (body object). The integration between these three ways to experience own body allows for a stable identity.
The optical-coenaesthetic disproportion hypothesis

Clinical background

The Optical-Coenaesthetic Disproportion hypothesis of feeding and eating disorders (FEDs) has its roots in the dissatisfaction with standard definition and classification of this syndrome, based on the focus on behavioural or observable anomalies (e.g., restriction of energy intake, low body weight, and behaviour which interferes with weight gain) and biased by value-laden concepts (e.g., undue influence of body shape, and lack of recognition of the seriousness of the current low body weight). In addition, one of the main issues in the classic nosography of FEDs is that patients move between various diagnostic categories across time (diagnostic crossover) [21, 22]. Longitudinal studies indicate that large proportion of patients migrate among diagnoses over time [21–23] without a substantial change in basic psychopathological features [24] suggesting the existence of a common psychopathological core [3, 4, 7, 14, 25–27].

From a phenomenological perspective, the abnormal experiences that characterize the persons with FED (e.g., weight and shape concerns) are the result of a more profound disturbance which concern to the way these persons experience their own body (embodiment) and shape their personal identity. [2–4, 7, 14, 25, 28]. In line with this perspective, the assessment of persons with FEDs should include the way of experiencing one’s own body and lived corporeality enriching and going beyond the behavioural evaluation required for DSM diagnosis. Clinicians should consider the impact of this dimension on other aspects of the patient’s life, namely the role of the body both in the intersubjective interactions and in the process of shaping of the personal identity, as well as in other dimensions associated with FED such as the way of experiencing the space and the time [2, 4, 14, 25, 26]. Indeed, in literature, behaviours and cognitive distortion that characterize FED can be understood in the light of spatial metamorphosis that is deeply associated with the disorder of embodiment [25] as well as the experience of time that these patients try to achieve by controlling eating and weight [29].

The focus on the experiential dimension of FEDs brought in the foreground clinical features related to bodily experience and to the process of identity formation in these persons through devising an assessment tool for empirical research called IDEA (IDentity and EAting disorders) [7]. First, this questionnaire allowed to collect clinical data in large populations of persons affected by FEDs, or vulnerable to it, as well as in the general population or in patients affected by cognitive disorders like obese bariatric patients. In a subsequent step, the data obtained through the IDEA questionnaire became the basis to identify and describe a specific pheno-phenotype [14, 26, 31, 32] that expresses a gradient of vulnerability to FEDs along a continuum, rising from high-risk nonclinical subjects toward the clinical population of eating disorder patients and including obese patients [33, 34]. The pheno-phenotype tracked down is a specific type of disorder of embodiment, in particular the troubling of the coenaesthesia apprehension, that is the experience of my body from within, in which interoceptive and proprioceptive sensibility conveys [11–35].

The Optical-Coenaesthetic Disproportion hypothesis has been developed from these data.

Description and details of optical-coenaesthetic disproportion hypothesis

The Optical-Coenaesthetic Disproportion hypothesis argues that in persons with FEDs, the coenaesthetic apprehension of oneself is troubled, and as a compensation to it, these persons experience their own body as an object that is looked at by the other [9].

Each of us, under normal conditions, experiences his own body through the combination of the way we feel ourselves from a first-person perspective and the way we experience ourselves through other sense modalities, in particular the visual. Therefore, bodily experience is the result of a dialectical or proportion between two modalities: coenesthetic and visual.

Therefore, the constitution of the subject develops in the dialectics between these two phenomena, both necessary but partial, which, however, in mutual interaction manage to provide the foundations for the development of the identity of the subject. In fact, our identity-making dialectics always starts, necessarily, from the basis that our experience of the body provides us, and only later it can distance itself from its complete adherence to materiality and criticize it [17, 18, 36]. The constitution of these two dialectical poles, body subject and body object, reflects two different ways of experiencing one’s own body: on one hand, the coenaesthetic apprehension, which corresponds to one’s own body experienced from within, on the other, the optical perception, which corresponds to the body seen from the other’s vantage [10, 11]. These two ways of experiencing our body, both valid and necessary, must however be in balance with each other to allow the rise of a healthy subject. Otherwise, when a pole becomes predominant, disproportion and therefore psychopathology are encountered [14].

In persons affected by FEDs this dialectical mode is disturbed and their possibility to feel themselves is weakened. Facing a sense of unfamiliarity with one’s own flesh, they compensate their disturbed coenesthesia, experiencing their own body as an object being looked at by another, rather than coenesthetically or from a first-person perspective. The peculiar mode to experience their own body in these patients is “Videor ergo sum” (“I am seen therefore I am”) [37].
The way they feel looked at by the other is the principal mode to feel themselves and define their identity [2, 14, 26]. Their body is principally given to them as an object “to be seen.” It is a body-for-the-other, that is a body exposed and subjected to the other’s gaze and thus reduced to its appearance.

Here, the other’s look is a kind of visual prosthesis that help them to feel their own body. Feeling one’s body as an object being looked at by another has two effects: (a) it makes FEDs people feel embarrassment and repulsion for their own body, (b) but it also helps them recover a sense of selfhood, “unity,” and “condensation” [14, 26, 31].

The characteristics of the body object then become the only ones that can guarantee me as a subject, taking over the possibility of defining myself from within. The image of my body, as it appears to the gaze of the other, is no longer one of the elements that form the mosaic of my person, but the main piece of the picture, perhaps even the only one, which defines what I am. In consequence, the frenzy and the fury in trying to make that body-I-have, the visible body, all the more mirror of the body-I-am, of the body-I-feel, are not surprising [2]. The body image therefore becomes a blackboard of self-expression, but always expresses a reified body, an adhesion to the body object that the gaze of the other offers me [9 –11, 14, 26]. The vehicle of the identity constitution, instead of the body-I-am, then becomes the measurements of the objective body (BMI, weight, thinness, etc.), as fixed points in a floating world [14, 26] (Table 1a, b).

**Neurosciences research and optical-coenaesthetic disproportion hypothesis**

The Optical-Coenaesthetic Disproportion hypothesis and its underlying clinical data nicely fit with neuroscientific data [9]. Neuroscience research suggests that people with FED have impaired both body image (BI) and bodily self-consciousness (BSC). BI refers to inputs from the body [38] (it encompasses a perceptual, an affective, and a cognitive domain) [11], while BSC is the multisensory integration of the afferents coming from within and from outside the body (exteroceptive inputs) [39]. Neurosciences research shows a dimming of both interoceptive and exteroceptive signals with a predominance of visual signals (exteroceptive) as compared to those coming from inside the body (interoceptive). This dominance of the exteroceptive signals seems to play a fundamental role in abnormal body and self-experiences in people with FED [8, 40–49].

In summary, what is emerged from these studies was a defective constitution of the BSC [9]. On one hand, these empirical data confirm FEDs as disorders of embodiment, and on the other hand, they help to better understand the

| Vignette | Description |
|----------|-------------|
| a Vignette 1: coenaesthetic apprehension troubled. | S. S. is a 35-year-old woman who was been affected by eating disorder since the age of 20. Her life-world is characterized by feelings usually experienced as evanescent. Several times S. reports that she is not able of feeling her emotions and she does not know who she is. In her world, what is at stake is the possibility of feeling through one’s body. The experience of not feeling her own body and emotions affects her whole sense of identity. These difficulties were “managed” by S. by continuously measuring her body, by counting the calories ingested and through other compensatory modalities. As if these modalities could help her in feeling herself, in obtaining an identity. This necessity to endlessly construct herself is accompanied by anguish with respect to the inexorable passing of time. Phenomenological file: Emotions: Disgust, shame and anxiety. They are evanescent or extraneous. Body: She feels extraneous from her bodily self: “I do not trust what I feel in my body”; “Often, I feel my body as an empty shell”; “I don’t feel my body … I want to feel the bones”. Time: She experiences time as uncontrollable and sometimes passing too fast. “If I could choose, I would stop time! I promised to myself to lose weight” |
| b Vignette 2: feeling through the gaze of the other | M. F. is a 24-year-old girl. She alternates moments in which she desires to be seen by other persons to moments when she avoids them. Her possibility to feel herself depends on the gaze of other. Indeed, when M. is in the midst of people, she observes how she is looked at. In this regard, she says: “The way I feel depends on the way I feel looked at by the others”. It is a world full of gazes that save her from feeling her identity as inconsistent. Phenomenological file: Body: Lived body for the other. “Sometimes being looked at by another person gives me a sensation solidity other times I feel excessive and fat. The gaze of other make me feel!” Self: Pornographic conceptualization [52] of the Self that is based on being seen and on the approval others. Other: The Other is reduced to its gaze |

© Springer
bodily experiences in FED, going beyond behaviour symptoms. The ALH hypothesis further explains the role of bodily experiences in FED. In particular, it shows how a defect in the integration of the various signals coming from both inside and outside of the body can explain the symptoms of the FED [46, 50].

Indeed, a compromised integration between the egocentric experience of the body (body-centered) and its allocentric representation (centered on the world/object) does not allow constant updating of the contents of the allocentric representation of the body. The consequence of this impairment is that the subject is locked to the allocentric representation of his body, which primes the processing of any further body-related experience [9].

In conclusion, taken together, all these empirical data highlight an impaired BSC in persons with FEDs, confirming each other in drawing attention to three anomalous features of bodily self-experience: diminished or impaired interoception/coenaesthesia, increased exteroception via visual inputs, and abnormal integration between these two sources of bodily self-experience.

**Psychotherapeutic perspectives**

The understanding of FEDs as disorders of the dialectics between body subject and body object, and as the disproportion between the coenaesthetic and the optical perception of one’s own body, opens up new therapeutic perspectives. The Optical-Coenaesthetic Disproportion model would in fact allow to focus, in the therapeutic interviews, the theme of the patient’s identity-making process and not only his eating-related symptoms. Letting the patient describe the way in which he feels looked at by the other, or how he would like to be looked at, allows us to identify the pathogenetic potential of the gaze of the other. The onset of the symptoms could therefore be related to an interpersonal circumstance in which the patient felt looked at in a certain way. This observation opens up the possibility to deepen those situations in which the experience of the body as an object-to-be-seen comes into play, and consequently the way in which the relationship with the other mediates the identity-making process. The failure of the integration between the body experienced from within and the body experienced from without leads to the collapse of the identity-forming dialectics and contributes to the emergence of the symptom.

The psychotherapeutic relationship, mediating the experience of recognizing the other despite its fragilities and weaknesses, offers the subject a different Other than the one with the reifying gaze that he has always known [12, 31, 51]. The psychotherapist reveals to the subject that there is the possibility of renouncing the alienating effect of the gaze of the other, in favor of an experience of intimacy [14, 26]. Through the use of tact and with the establishment of an effective therapeutic relationship, the blocked identity-making dialectics of these subjects is reactivated. Body subject and body object, instead of being two poles sclerotized in a rigid system, return to interact dialectically with each other. The passage through the therapist’s gaze, a recognizing and non-judgmental gaze, allows the subject to look at his symptom with greater distance, without fully adhering to it, and this is the first step to get rid of it [12].

In this perspective, the phenomenological file becomes a useful tool for looking at the patient’s world [13]. The dimensions of subjective experience are organized in the different domains of the phenomenological file (Table 1a, b), which include the experience of time, space, body, other, and self [14, 26]. Consequently, this tool allows to highlight the psychopathological core of the disorders, demonstrated both by clinic and by empirical studies, analyzing how it declines in the various dimensions of personal experience. The implementation of the therapeutic path in this sense appears extremely relevant. The understanding of the dialectics between body subject and body object thus becomes the fundamental pillar of phenomenological-dynamic psychotherapy in patients with FEDs. Even outside of this framework, however, it is a model capable of highlighting therapeutic perspectives that can be addressed within psychotherapies of various orientations, facilitating the understanding of the patient’s being-in-the-world and patient-therapist dialogue. In fact, within a positive relationship dynamic, the subject affected by FEDs can find the engine that allows him to restart the fixed mechanism of his own body experience.

In conclusion, this study shows that, contrary to accounts from mainstream literature, feeding and eating disorders are more than just behavioural anomalies. The hypothesis we described highlights how behavioural anomalies are secondary epiphenomena to a more basic psychopathological core, consisting in disorders of the way persons experience their own body and the way they shape and construct their personal identity (i.e., what it is like to suffer from feeding and eating disorders).

This hypothesis goes beyond mere symptom assessment and, by focusing on anomalies of bodily experience and identity, allows to understand the sufferings of people affected by these disorders, to improve the therapeutic practice by strengthening therapeutic alliance and dialogue, and to promote long-term effects as it is not based only on the elimination of anomalous eating behaviours. Furthermore, this perspective allows a more accurate diagnosis, for example it helps to better distinguish “nuclear” forms of anorexia nervosa from other forms of food intake reduction (e.g., depressive or delusional forms) which differ from the former in terms of specific motivational states. Last but not least,
this hypothesis provides a solid epistemological foundation for future research, in particular for neuroscientific research.

Limits

This is a theoretical paper focusing on the phenomenological understanding of feeding and eating disorders. Its main limitation is that it does not provide new empirical data, yet it is supported by existing clinical evidence taken from the phenomenological perspective.

Author contributions

MM and CME authors worked on researching and writing the article.

Funding

Open Access funding provided by Università degli Studi G. D'Annunzio Chieti Pescara. The author(s) received no financial support for the research, authorship, and/or publication of this article.

Availability of data and materials

Not applicable.

Compliance with ethical standards

Conflicts of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical approval

This article does not contain any studies with human participants or animals performed by any of the author.

Informed consent

No informed consent is required.

Open Access

This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

References

1. Herpertz-Dahlmann B (2015) Adolescent eating disorders: update on definitions, symptomatology, epidemiology, and comorbidity. Child Adolesc Psychiat Clin N Am 24(1):177–196. https://doi.org/10.1016/j.chc.2014.08.003
2. Stanghellini G, Mancini M, Castellini G, Ricca V (2018) Eating disorders as disorders of embodiment and identity Theoretical and empirical perspectives. In: McBride HL, Kwee JL (eds) Embodiment and Eating Disorders. Theory Research Preventions and Treatment, Routledge, London, pp 127–142
3. Castellini G, Lo Sauro C, Mannucci E, Ravaldi C, Rotella CM, Faravelli C, Ricca V (2011) Diagnostic crossover and outcome predictors in eating disorders according to DSM-IV and DSM-V proposed criteria: a 6-year follow-up study. Psychosom Med 73(3):270–279. https://doi.org/10.1097/PSY.0b013e31820a1838
4. Stanghellini G, Trisolini F, Castellini G, Ambrosini A, Faravelli C, Ricca V (2015) Is feeling extraneous from one’s own body a core vulnerability feature in eating disorders? Psychopathology 48:18–24. https://doi.org/10.1159/000364882
5. Grilo CM, Crosby RD, Masheb RM, White MA, Peterson CB, Wonderlich SA, Engel SG, Crow SJ, Mitchell JE (2009) Overvaluation of shape and weight in binge eating disorder, bulimia nervosa, and sub-threshold bulimia nervosa. Behav Res Ther 47:692–696. https://doi.org/10.1016/j.brat.2009.05.001
6. Goldschmidt AB, Hilbert A, Manwaring JL, Willeit DE, Pike KM, Fairburn CG, Dohm FA, Striegel-Moore RH (2010) The significance of overvaluation of shape and weight in binge eating disorder. Behav Res Ther 48:187–193. https://doi.org/10.1016/j.brat.2009.10.008
7. 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 45:147–148. https://doi.org/10.1159/000330258
8. Gaudio S, Riva G (2013) Body image in anorexia: the link between functional connectivity alterations and reference frames. Biol Psychiatry 73(9):e25–e26. https://doi.org/10.1016/j.biopsych.2012.08.028
9. Stanghellini G, Ballerini M, Mancini M (2019) The Optical-Coenaesthetic Disproportion Hypothesis of Feeding and Eating Disorders in the Light of Neuroscience. Front Psychiatry. https://doi.org/10.3389/fpsyt.2019.00630
10. Stanghellini G (2019) The optical-coenaesthetic disproportion in feeding and eating disorders. Eur Psychiatry 58:70–71. https://doi.org/10.1016/j.eurpsy.2019.02.005
11. Stanghellini G (2019) Embodiment and the other’s look in feeding and eating disorders. World Psychiatry 18(3):364–365. https://doi.org/10.1002/wps.20683
12. Esposito CM, Stanghellini G (2020) The pathogenic and therapeutic potential of the gaze of the other in the clinic of “eating disorders.” Psychopathology 3:1–7. https://doi.org/10.1159/000509625
13. Messas G, Tamelini M, Mancini M, Stanghellini G (2018) New perspectives in phenomenological psychopathology: its use in psychiatric treatment. Front Psychiatry. https://doi.org/10.3389/fpsyt.2018.00466
14. Stanghellini G, Mancini M (2018) Mondi psicopatologici. Teoria e pratica dell’intervista psicoterapeutica, Edra, Milano
15. Husserl E (1962) Ideas: general introduction to pure phenomenology, Collier Macmillian, New York
16. Merleau-Ponty M (1962) Phenomenology of perception. The Humanities Press, London
17. Sartre JP (2003) Being and nothingness: an essay on phenomenological ontology. Routledge, London
18. Fuchs T (2017) Ecology of the Brain: The phenomenology and biology of the embodied mind. Oxford University Press, Oxford
19. Merleau-Ponty M (1968) The visible and the invisible: followed by notes. Northwestern University Press, Evanston
20. Sartre JP (2012) Saint Genet. University of Minnesota Press, Minneapolis Actor and Martyr
21. Fairburn CG, Cooper Z, Shafran R (2003) Cognitive behaviour therapy for eating disorders: a “transdiagnostic” theory and treatment. Behav Res Ther 4:509–528. https://doi.org/10.1016/S0006-7967(02)00088-8
22. Fairburn CG, Harrison PJ (2003) Eating disorders. The Lancet 361(9355):407–416. https://doi.org/10.1016/S0140-6736(03)12378-1
23. Milos G, Spindler A, Schnyder U, Fairburn CG (2005) Instability of eating disorder diagnoses: prospective study. Br J Psych 187(6):573–578. https://doi.org/10.1192/bjp.187.6.573
24. Tozzi F, Thornton LM, Klump KL, Fichter MM, Halmi KA, Kaplan AS, Rotondo A (2005) Symptom fluctuation in eating disorders: correlates of diagnostic crossover. Am J Psychiatry 162(4):732–740. https://doi.org/10.1176/appi.ajp.162.4.732
25. Castellini G, Trisolini F, Ricca V (2014) Psychopathology of eating disorders. J Psychopathol 20:461–470
26. Stanghellini G, Mancini M (2017) The Therapeutic Interview. Cambridge University Press, Cambridge
27. Aragona M, Stanghellini G, Mancini M (2019) Psicopatologia fenomenologica e disturbi dell’alimentazione: teoria e prassi. In: Spitonì GF, Aragona M (eds) Manuale dei disturbi alimentari. Carocci Editore, Roma
28. Mancini M, Trisolini F (2019) Verso una nuova nosografia dei disturbi dello spettro del comportamento alimentare. In: Fiorillo A (ed) Manuale di Psichiatria contemporanea. Edizioni Alpes, Milano
29. Stanghellini G, Mancini M (2019) Abnormal time experience in persons with feeding and eating disorder: a naturalistic exploratory study. Phenomenologico Cognitive Sci 18:759–773. https://doi.org/10.1007/s11097-019-09618-5
30. Stanghellini G, Rossi R (2014) Phenotypotypes: a holistic approach to the psychopathology of schizophrenia. Curr Opin Psych 27:236–241. https://doi.org/10.1097/YCO.0000000000000059
31. Stanghellini G (2016) Lost in dialogue. Oxford University Press, Oxford
32. Stanghellini G (2016) Phenomenological psychopathology and care: from person centered dialectical psychopathology to the PHD method for psychotherapy. In: Stanghellini G, Aragona M (eds) An Experiential Approach to Psychopathology: What Is It Like to Suffer from Mental Disorders. Springer, New York, pp 361–378
33. Castellini G, Stanghellini G, Godini L, Lucchese M, Trisolini F, Ricca V (2015) Abnormal bodily experiences mediate the relationship between impulsivity and binge eating in overweight subjects seeking bariatric surgery. Psychother Psychosom 84:124–126. https://doi.org/10.1159/000365765
34. Castellini G, Franzago M, Bagnoli S, Lelli L, Balsamo M, Mancini M, Stuppa L, Stanghellini G (2017) Fat mass and obesity-associated gene (FTO) is associated to eating disorders susceptibility and moderates the expression of psychopathological traits. PLoS ONE 12:3. https://doi.org/10.1371/journal.pone.0173560
35. Stanghellini G, Ballerini M, Fusar Poli P, Cutting J (2012) Abnormal bodily experiences may be a marker of early schizophrenia? Curr Pharm Des 18(4):392–398. https://doi.org/10.2174/1381212799316181
36. Cascino G, Castellini G, Stanghellini G, Ricca V, Cassioli E, Ruzzi V, Monteleone P, Monteleone AM (2019) The Role of the embodiment disturbance in the anorexia nervosa psychopathology: a network analysis study. Brain Sci 9(10):276. https://doi.org/10.3390/brainsci9100276
37. Stanghellini G (2020) Selfie. Sentirsi nello sguardo dell’altro. Feltrinelli, Milano
38. Pitron V, Alsmith A, de Vignemont F (2018) How do the body schema and the body image interact? Conscious Cogn 65:352–358. https://doi.org/10.1016/j.concog.2018.08.007
39. Blanke O, Slater M, Serino A (2015) Behavioral, neural, and computational principles of bodily self-consciousness. Neuron 88(1):145–166. https://doi.org/10.1016/j.neuron.2015.09.029
40. Gaudio S, Wiemerslage L, Brooks SJ, Schiöth HB (2016) A systematic review of resting-state functional-MRI studies in anorexia nervosa: evidence for functional connectivity impairment in cognitive control and visuospatial and body-signal integration. Neurosci Biobehav Rev 71:578–589. https://doi.org/10.1016/j.neubiorev.2016.09.032
41. Gaudio S, Brooks SJ, Riva G (2014) Nonvisual multisensory impairment of body perception in anorexia nervosa: a systematic review of neuropsychological studies. PLoS ONE 9(10):e110087. https://doi.org/10.1371/journal.pone.0110087
42. Riva G (2012) Neuroscience and eating disorders: the allocentric lock hypothesis. Med Hypotheses 78:254–257. https://doi.org/10.1016/j.mehy.2011.10.039
43. Riva G (2014) Out of my real body: cognitive neuroscience meets eating disorders. Front Hum Neurosci 8:236. https://doi.org/10.3389/fnhum.2014.00236
44. Riva G (2016) Neurobiology of Anorexia Nervosa: Serotonin dysfunctions link self-starvation with body image disturbances through an impaired body memory. Front Hum Neurosci 10:600. https://doi.org/10.3389/fnhum.2016.00600
45. Riva G (2018) The neuroscience of body memory: from the self through the space to the others. Cortex 104:241–260. https://doi.org/10.1016/j.cortex.2017.07.013
46. Riva G, Gaudio S (2012) Allocentric lock in anorexia nervosa: new evidences from neuroimaging studies. Med Hypotheses 79(1):113–117. https://doi.org/10.1016/j.mehy.2012.03.036
47. Riva G, Gaudio S, Dakanalis A (2013) I’m in a virtual body: a locked allocentric memory may impair the body in both obesity and anorexia nervosa. Eating Weight Dis 19(1):133–134. https://doi.org/10.1007/s40519-013-0066-3
48. Riva G, Gaudio S, Dakanalis A (2015) The neuropsychology of self-objectification. Eur Psychol 20(1):34–43. https://doi.org/10.1027/1016-9040/a000190
49. Serino S, Dakanalis A, Gaudio S, Carra G, Cipresso P, Clerici M, Riva G (2015) Out of body, out of space: Impaired reference frame processing in eating disorders. Psychiatry Res 230(2):732–734. https://doi.org/10.1016/j.psychres.2015.10.025
50. Scaife JC, Godier LR, Reinecke A, Harmer CJ, Park RJ (2016) Differential activation of the frontal pole to high vs low calorie foods: the neural basis of food preference in anorexia nervosa? Psychiatry Res. Neuroimaging 258:44–53. https://doi.org/10.1016/j.pscychresns.2016.10.004
51. Kojève A (1969) Introduction to the reading of Hegel. Basic Books, New York
52. Stanghellini G (2005) For an anthropology of eating disorders. In: Fiorillo A, Aragona M (eds) An Experiential Approach to Psychopathology: What Is It Like to Suffer from Mental Disorders. Springer, New York, pp 121–139
Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.