
Fear of deontological guilt and fear of contamination in obsessive-compulsive disorder

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Summary

In order to contribute to a deeper understanding of obsessive-compulsive disorder, in the current paper we will argue the existence of two different guilt emotions: altruistic guilt and deontological guilt. According to appraisal theories of emotion, the two senses of guilt differ in the goals that could be threatened: the altruistic goal of benefitting another or the deontological goal of the «Do not play God» principle. Evidence in support of the existence of these two distinct senses of guilt, coming from several studies, will be presented. We will then argue a) the existence of a special relationship between deontological guilt and disgust, and b) that obsessive-compulsive patients are more sensitive to deontological guilt than to altruistic guilt. Experimental data consistent with both these hypotheses will be presented.

Keywords: *guilt emotion, deontological guilt, altruistic guilt, disgust, obsessive-compulsive disorder.*

Riassunto

Paura del senso di colpa deontologico e paura della contaminazione nel disturbo ossessivo-compulsivo

Con la finalità di contribuire a una maggiore comprensione del disturbo ossessivo-compulsivo, nel presente articolo sosterremo l'esistenza di due differenti emozioni di colpa: il senso di colpa altruistico e il senso di colpa deontologico. Secondo le teorie dell'*appraisal*, i due sensi di colpa differiscono rispetto agli scopi che potrebbero essere minacciati: lo scopo altruistico di non trarre profitto da un altro o lo scopo deontologico del principio «Non giocare a fare Dio».

Saranno presentate evidenze, provenienti da diversi studi, a supporto dell'esistenza di questi due distinti sensi di colpa. Sosterremo poi: a) l'esistenza di una particolare relazione tra senso di colpa deontologico e disgusto e b) che i pazienti ossessivo-compulsivi siano maggiormente sensibili alla colpa deontologica che a quella altruistica. Dati sperimentali, coerenti con le due ipotesi, saranno presentati.

Parole chiave: *emozione di colpa, colpa deontologica, colpa altruistica, disgusto, disturbo ossessivo-compulsivo.*

INTRODUCTION

According to the cognitive appraisal approach to obsessive-compulsive disorder (OCD), this paper moves from the assumption that obsessions and compulsions are activities mainly driven by the goal of avoiding, preventing and neutralizing guilt and/or contamination and by the representation of being guilty or contaminated as an impending catastrophe. Mancini, Perdighe, Serrani and Gangemi (2009) have indeed recently found that the most part of a group of OC patients evaluated the critical events activating obsessions and compulsions, in terms of fear of guilt and fear of contamination.

As noticed by Arntz, Voncken and Goosen (2007), the idea that OCD is related to inflated responsibility and fear of guilt has early roots in psychodynamic thinking, in which OCD has been associated with problems with a too stringent superego (Freud, 2001). Several pieces of empirical evidence have then confirmed that responsibility and guilt play a role in OCD (summarized in Arntz, Voncken and Goosen, 2007). For example, OCD patients and non-patients with OCD-symptoms tend to score higher on measures of responsibility and guilt. This association seems to be specific for OCD, especially for checkers, and not to be characteristic of anxiety disorders in general. Moreover, when reassured that the experimenter takes all the responsibility, OCD patients report a reduced urge to execute their rituals. Induction of responsibility in non-patients leads to an increase in OCD-like behavior compared to control conditions. Finally, Arntz and colleagues (id.) demonstrated «that high personal responsibility is a specific and pivotal factor in the development and expansion of compulsive behavior in OCD patients».

But, as noticed by Dèttore (2003), OC patients do not seem particularly altruistic or concerned about the well-being of others, although they feel highly responsible and highly concerned about guilt. So the first question is, what kind of guilt is feared by OCD?

As regards the fear of contamination, Berle and Philips (2006), in a research review on the role of disgust in obsessive patients, claim that there is an association between OCD symptoms and disgust, although it is limited to particular OCD subtypes. This is largely consistent with findings from neuroimaging studies, which have also indicated an association between disgust and contamination-focused OCD symptoms. Moreover, they claim that the presence of disgust in OC patients might indicate contamination-focused obsessions, washing compulsions, or morality-focused obsessions.

Furthermore, the fear of guilt and the fear of contamination go often hand in hand. It is not so rare to observe in the same patient, in the same period, or even in different moments of her/his life, washing symptoms, which are probably related to the fear of contamination, and checking or order and symmetry compulsions, probably associated with the fear of guilt. So, a second question arises: are these two fears associated by any chance or there is a significant nexus?

An accurate analysis of guilt emotions may be useful to answer to both the above mentioned questions, and thus to better understand OCD. To this aim, in the current paper we are going to present some evidence that a. two different guilt emotions exist, altruistic and deontological ones, b. deontological guilt implies a greater sensitivity to disgust than altruistic guilt, and c. obsessive-compulsive patients are specifically sensitive to deontological guilt.

ALTRUISTIC AND DEONTOLOGICAL GUILT

Mancini (2008) suggested that it is possible to distinguish between two basic and different guilt emotions—altruistic guilt and deontological guilt. These two guilt emotions are quite distinct, and although both are normally present in the majority of guilt emotions experienced by people in their daily lives, they could appear alone as represented in the vignettes reported below.

The first two vignettes suggest the existence of an altruistic guilt.

I suffered serious symptoms and was admitted to hospital. During this time I shared a room with another person and we became friends. After ten days doctor informed me that all was well and that I could go home. I was packing my bag when my friend came into the room. He was very distressed: doctor had diagnosed him with cancer. Even today I can't stand the idea that I was able to resume my life and his became an ordeal. I feel guilty at not having shared his fate. (Castelfranchi, 1994)

This is the good luck or survivor's guilt emotion (Castelfranchi, 1994; O'Connor, Berry, Weiss and Gilbert, 2002). Guilt is felt at not having shared the same fate as the other, for not having given the other some of one's own luck or for not having taken on board some of the other's bad luck.

I was on duty in my hospital ward when I was requested in another ward, where my grandmother had been admitted. As soon as I arrived, I realized that my grandmother was in a coma and dying. I decided to return to my own ward to personally advise a patient that I could not talk to him that day. I went back to my grandmother and saw that she had died in the meantime. Several days later I still feel very guilty at not staying with her and not having held her hand while she passed away.

This is an example of altruistic guilt due to affection, in which not standing by the victim side is enough for feeling guilty. In both cases, it is not necessary to have violated any moral norm in order to feel guilty.

Altruistic guilt appears when one appraises his own conduct as not altruistic and it is characterized by feeling of sorrow, even of anguish for the victim, an inner dialogue that is of the type «poor fellow, how much he is suffering», «what have I done to him?», «what can I do for him?». It implies the tendency to alleviate suffering of the victim at the expense of one's own, and compassion (but compassion doesn't necessarily imply altruistic guilt).

The following examples suggest the existence of a deontological guilt instead.

I had just graduated in medicine. One evening, when I arrived for night duty, I found that a patient with terminal cancer had gone into a coma. Even in the torpor of his coma the patient complained of the pain. The head physician instructed me to give him massive doses of morphine which could have soothed his pain but above all, would have speeded up his death. I was just going to inject the morphine when the thought crossed my mind «who am I to decide on this person's life or death? Who authorizes me to play God? It is not morally correct, I can not do that». This thought stopped me from acting.

The «stop» in this case was a result of the intuitive, deontological norm «not play God», or in more lay terms, «don't tamper with nature». According to this norm, no one has the moral right to make a decision about everything or that does not respect the limits of social position or function (Sunstein, 2005).

Julie and Mark are brother and sister. They are travelling together in France on summer vacation from college. One night they are staying alone in a cabin near the beach. They decide that it would be interesting and fun if they tried making love. At the very least it would be a new experience for both of them. Julie was already taking birth control pills, but Mark uses a condom too, just to be safe. They both enjoy making love, but they decided not to do it again. They keep that night as a special secret, which makes them feel even closer to each other. (Haidt, 2001)

In this second example, guilt may arise out of the assumption of having violated an intuitive moral rule, respected in all cultures, which bans incest, regardless of the genetic risks involved and even if the two were consenting.

As shown in both vignettes, deontological guilt arises thus out of the assumption of having violated one's own moral rules. It implies feeling of unworthiness, expectations of punishment, and an inner dialogue that is of the kind: «How could I have done this!». It might be alleviated through confession or apology.

But what about the main differences between the two guilt emotions?

In altruistic guilt there is always a victim that suffers harm and the assumption of not having been altruistic, but there might not have been any violation of moral rules. In deontological guilt, on the contrary, there might not have been no victim at all (e.g. incest between consenting siblings) and even action for the victim's benefit (e.g. in euthanasia). It is necessary and sufficient the assumption of having violated an intuitive moral rule.

EVIDENCE OF THE DISTINCTION BETWEEN DEONTOLOGICAL AND ALTRUISTIC GUILT

A first group of evidence in support of the existence of these two distinct senses of guilt comes from a number of studies, demonstrating their different influences on individuals' moral preferences, when faced with tasks like the well-known switch version of the trolley problem. In its original form, the problem asks people to suppose that a runaway trolley is headed for five people, who will be killed if the trolley continues on its course. The question is whether one would throw a switch that would move the trolley onto another set of tracks, killing one person rather than five. This moral dilemma has been selected, because it requires participants to choose one of two undesirable courses of action (both involving loss of life), putting two opposing moral instances into conflict: an altruistic one and a deontological one. The «yes» altruistic/action option requires subjects to act, thereby causing the death of one person, but indirectly saving the lives of others. It implies modification of the «natural order» in the attempt to minimize the number of victims. The «no» deontological/inaction option involves no action, but the failure to act results in the deaths of five people. Inaction does not modify the «natural order» and respects the «Do

not play God» deontological principle. Sunstein (2005) suggests indeed that «Not play God/Not tamper with nature» deontological principle might explain the moral preference for inactions rather than for actions, that is usually observed in this kind of problem. In fact, actions interfere with «natural order» more than inactions. Accordingly, it has been hypothesized that the activation of deontological guilt would lead people to choose inaction in the switch version of trolley dilemma, while the activation of altruistic guilt would lead to choose action, consistent with the altruistic goal of minimizing suffering.¹ In fact in a preliminary study (Mancini, Gangemi and Salianni, 2009) it has been demonstrated that individuals preferring the inaction tended to justify it by referring to the Not play God principle (for example: «I cannot decide who lives and who dies»), while those preferring the action tended to justify it by referring to the altruistic principle that prescribe to minimize other's suffering (for example: «it's better that 3 people die instead of 5»). Moreover, in two further studies it has been found that actually deontological guilt induction leads subjects to prefer the inaction, while the altruistic guilt induction leads subjects to prefer the action. The only difference between these studies was the induction procedure used in each of them (Mancini et al., 2009)

Finally, in a fourth study (Mancini et al., 2009), two different versions of the trolley dilemmas were used, both characterized by the presence of two different stimuli: an authority version (where an authority — e.g. policeman-judge — was close to the protagonist of the story and a second stimulus was an angry facial expression), and a closeness version (where the protagonist was close to the victims and a second stimulus was a sad facial expression). Consistent with the hypotheses, it has been demonstrated that the authority version lead individuals to prefer the inaction (i.e. the «Not play God» principle lead to limit one's own autonomy to decide), while the closeness version leads individuals to prefer the action (due to the altruistic goal of minimizing other's suffering).

A further study (Basile and Mancini, 2011) demonstrated that it is possible to activate altruistic guilt and deontological guilt separately by using facial expressions + phrases typical connected with each guilt feeling. In this study people was presented with 15 sequences of stimuli so made: pictures with facial expression indicating anger or sadness (Ekman, 1976) and a short internal dialogue sentence aimed at contextualizing and reinforcing the picture presented. Subjects were asked to imagine the expressions being directed towards them and to mentally repeat the internal dialogue statement. Participants reported higher rates of deontological guilt, rather than altruistic guilt, when showed with deontological guilt stimuli. Participants reported higher rate of altruistic guilt, rather than deontological guilt, when showed with altruistic guilt stimuli.

Finally, an experiment by Basile, Mancini, Macaluso, Caltagirone, Frackowiack and Bozzali (2010), using a fMRI paradigm, demonstrated that deontological and altruistic guilt involve two different brain networks. The two guilt emotions were activated separately

¹ When faced with the original trolley problem, most subjects (80-90%) prefer action (see Greene, Cushman, Stewart, Lowenberg, Nystrom and Cohen, 2009). In order to avoid this sort of ceiling effect, which could interfere with the results of the experiments, a version of the problem with a modified proportion of victims, 5 vs. 3 instead of the original five vs. one, was used.

by using facial expressions and phrases typical connected with each guilt feeling as in the previous study by Basile and Mancini (2011). A first contrast showed a higher activation in the insulae and in the anterior cingulate cortex in the deontological guilt condition, than in the altruistic guilt one. It is known that insulae are activated when self-reproach and disgust are activated (e.g. Rozin et al., 2000), thus it seems that deontological guilt implies self reproach and self-loathing more than altruistic guilt. Finally, a second contrast showed an increased activity in the medial prefrontal areas in the altruistic guilt condition, compared to the deontological guilt one. These neural structures are activated in theory of mind tasks and in the representation of other' intention (e.g. Blair, 1995; Shallice, 2001), thus it seems that altruism implies understanding the victim's mind (Moll, de Oliveira-Souza, Moll, Ignácio, Bramati, Caparelli-Dàquer and Eslinger, 2005), much more than deontology. These neural structures seem to be involved also in experiencing empathy and compassion. Taken all together, these findings suggest the existence of two hypothetical different brain networks involved in deontological and altruistic guilt, which respectively seem to involve the insulae and the anterior cingulated cortex in the former, and the medial prefrontal areas in the latter.

DEONTOLOGICAL GUILT AND DISGUST

As shown in the earlier paragraph, unlike altruistic guilt, deontological guilt activates the insulae, which seem to play a crucial role in the experience of disgust. This suggests the existence of a special relationship between deontological guilt and disgust. A convincing demonstration comes from the so-called Lady Macbeth effect: «A threat to one's moral purity induces the need to clean oneself. Physical cleaning alleviates the upsetting consequences of un-deontological behavior and reduces threats to one's moral self-image» (Zhong and Liljenquist, 2006). However in these experiments, the authors made some distinction between deontological and altruistic guilt. By contrast, Mancini and Gangemi (2008) recently showed that deontological guilt produces a stronger Macbeth effect, than altruistic guilt: an increased mental accessibility of cleansing related words, a greater desire for cleansing products. Moreover, hand washing leads to a higher decrease of deontological guilt than altruistic guilt, i.e. deontological sins seem to be more washable than altruistic sins.

WHICH SPECIFIC GUILT PLAYS A ROLE IN OCD?

Experimental evidence together with some clinical observations suggests that OC patients are concerned about deontological guilt more than about altruistic guilt. Quite often, obsessive concern is not for victims, but for self- or others-reproach, and some experiments (e.g. Lopatcka and Rachman, 1995; Shafran, 1997) have shown that obsessive concern about a harmful event, for instance, a gas explosion, is drastically reduced if responsibility for the event is attributed to someone else's, even the probability of the event is not changed. This suggests that the obsessional's concern is not for any victims of the explosion but for self or other reproaching. Moreover, it is not uncommon that OC patients' concerns

are more about their own performance, than about outcome: it is better for them to do little irreproachably, than to do much act effectively. For example, a patient named Mario would spend hours trying to repeat perfectly good-luck rituals aimed at preventing the aircraft in which his parents often traveled from crashing, rather than finding out which airlines were safer, or else convincing his parents to travel less. His main concern was to perform a perfect good luck ritual than to ensure more effectively his parents' safety.

It seems moreover that OC patients are specifically sensitive to criticism and punishment which typically characterize deontological guilt. The characteristic compulsivity of OC activity could suggest that these patients feel constrained by a moral duty. This is similar to what happens to all of us when we act not because we want to, but because we feel obliged to, by a duty.

Ehnholt, Salkovskis and Rimes (1999) demonstrated that «Obsessionals regarded the possibility of causing harm as likely to result in other people making extremely negative and critical judgments of them... thinking that others would loath or despise them; the other groups expected the responses of others towards them to be more lenient». Moreover, Pace, Thwaites e Freeston's review (2011) shows that criticism could play various roles in OCD: past experiences of criticism could be a vulnerability factor in developing OCD, OC belief domains may develop in reaction to criticism, and OC behaviors may work as strategies to avoid future criticism. Accordingly, van Noppen and Steketee (2009) found that patients who perceive their relatives as either critical or hostile, were likely to have more severe OCD symptoms. Moreover, Mariaskin (2010) found that the high obsessive group is more likely to report relationship-centered discipline, i.e. the parent using damage to the parent-child relationship as a vehicle for punishment, than those in the low obsessive group. Finally, Mancini, Perdighe, Serrani and Gangemi (2006) demonstrated that obsessive patients are more sensitive to critical or despising facial expressions than patients affected by other anxiety disorders. In their study, the authors showed to two groups of patients (obsessive vs. anxious but not obsessive) a set of pictures from Ekman's collection (1976) which expressed all the basic emotions. All patients were invited to imagine that the expressions were addressed to them and to indicate the two most uncomfortable pictures. OC patients chose more frequently the expressions of anger and disgust, than other patients. Finally all patients were invited to imagine that their fears became real, and then, were asked to indicate which facial expression they would have been confronted with. OC patients expected to be faced with expressions of anger or disgust, more frequently than other anxious patients.

Furthermore, OC patients are frequently concerned about religious or sexual sins, even though no harm is caused to anyone. For example, Sica, Novara and Sanavio (2002), after controlling for anxiety and depression, found that religious groups scored higher than individuals with a low degree of religiosity on measures of obsessionality, over importance of thoughts, control of thoughts, perfectionism and responsibility. Moreover, measures of control of thoughts and over importance of thoughts were associated with OC symptoms only in religious subjects. Abramowitz, Deacon, Woods and Tollin (2004) demonstrated that highly religious Protestants, reported greater obsessional symptoms, compulsive washing, need to control thought and responsibility than, moderately religious Protestants and

atheists/agnostics. Finally, Yorulmaz, Gençöz and Woody (2009) found that high religious Muslims and Catholics reported to experience more obsessional thoughts and checking, and a need to control intrusive thoughts and moral TAF.

Moreover, according to a number of fMRI studies (e.g., Rauch et al., 1998; Shapira et al., 2003; Mataix-Cols et al., 2005) in OC patients, during symptoms provocation tasks, are activated brain areas that seem to be involved also when non OC subjects are experiencing deontological guilt, in particular the anterior cingulate cortex and the insulae. This overlap between brain areas involved in deontological guilt and in obsessive brains needs, of course, to be further investigated, but suggests that during symptom provocation patients are experiencing deontological guilt.

Finally, in a recent study, Mancini, Gangemi and Saliani (2009) demonstrated that OCD patients solve problems like trolley dilemma, by preferring inactions more than both other clinical and non-clinical individuals. This result suggests that for OC patients the Not play God deontological principle actually holds a greater weight than altruism, corroborating thus the hypothesis that OC patients are specifically sensitive to the deontological guilt, while for the other anxiety patients and for normal controls it's the opposite. These results are in line with those of Franklin, S.A., McNally, R.A. & Riemann (2009). Using similar dilemmas, they found that a. the proportion of scenarios for which participants chose the inactions was greater for OCD participants than for controls (although this difference was not significant, but they used dilemma where one option implied five victims and the other option one victim), and b. the stronger an OCD patients responsibility attitudes, the more likely they were to choose inaction.

CONCLUSION

In order to contribute to a deeper understanding of OCD, in the current paper we argued the existence of two different guilt feelings and two related different moral evaluations: deontological and altruistic. According to appraisal theories of emotion (see. Scherer, 2001), these two senses of guilt differ not in the activating event, but only by virtue of its interpretation in the context of individual goals and beliefs. In this perspective, deontological and altruistic guilt differ in the goals that could be threatened: the altruistic goal of benefitting another or the deontological goal of the «Do not play God» principle. We thus presented some evidence that these two different guilt emotions actually exist, and that deontological guilt implies a greater sensitivity to disgust than altruistic guilt. We finally argued that this distinction can be useful for a better and more accurate understanding of obsessive mental state. The mental state ruling OC activity seems to be very specific, fear of deontological guilt, and the related fear of contamination.

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