

## On the edge of Capgras' syndrome

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### SUMMARY

Capgras' syndrome, the delusional belief in the existence of doubles of others or of oneself, belongs to the delusional misidentification syndromes (DMSs), a group of syndromes characterized by delusional misidentification of oneself and/or of other people. These syndromes are not codified as diagnoses per se on the DSM-5 or on the ICD-11, and are usually seen as specific presentations of broader psychiatric disorders. Capgras' syndrome has been shown on both psychiatric and non-psychiatric disorders, thus not being a manageable tool in helping clinicians to define a diagnosis. Presenting what we believe is a special case of Capgras' syndrome, we aim to propose a characterization of such syndrome very specific of schizophrenic – and thus psychiatric – conditions, which may turn especially useful in clinical pictures where no other psychiatric or medical symptoms are found and can help defining a diagnosis.

**Key words:** Capgras' syndrome, delusional misidentification syndromes, differential diagnosis

*Non c'è uomo che a forza di portare una maschera,  
non finisca per assimilare a questa anche il suo vero volto.*

(Nathaniel Hawthorne; La lettera scarlatta)

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### Conflict of interest

The Authors declare no conflict of interest

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### Introduction

In classic psychopathology there was a tendency toward giving names to specific presentations of delusional symptoms, mainly basing on their content. To name a few, in 1880 Jules Cotard gave a lesson on what is now known as the Cotard's syndrome, in which the subject believes he/she is dead, does not exist or has lost one or more of his internal organs <sup>1</sup>; in 1921 Gaëtan Gatian de Clérambault described the erotomanic delusion, today also known as the De Clérambault's syndrome <sup>2</sup>; in 1923 Capgras and Reboul-Lachaux wrote the first paper on the so called Capgras' syndrome, in which the subject believes one or more of the people in his life have been replaced by perfect doubles <sup>3</sup>; in 1927 Courbon and Fail described the case of a patient who believed that her two persecutors continuously changed aspect taking those of her dear ones, and called it Fregoli's syndrome after the Italian actor Leopoldo Fregoli <sup>4</sup>. The present paper focuses on Capgras' syndrome. In today's psychopathology both Capgras' and Fregoli's syndromes belong to the delusional misidentification syndromes (DMS), a group of syndromes characterized by delusional misidentifications of oneself and/or other people. In the beginning, the DMS encompassed four forms of delusions, namely Capgras, Fregoli, subjective doubles and intermetamorphosis syndromes, but in later years were also included reverse Capgras, reverse Fregoli, reverse subjective doubles and reverse intermetamorphosis <sup>5</sup>.

In a paper from 1996, Mojtabai showed how following classic definitions of these syndromes only a small number of delusional patients met their criteria, while a broader definition of the DMS allowed for a greater inclusion of blurred cases<sup>6</sup>. Such effort to broaden and redefine the classic criteria of the DMS was due to a growing dissatisfaction with the limitations of their classification, which seemed to fail to adequately represent the diversity of misidentification phenomena observed<sup>7,8</sup>.

The definition of Capgras' syndrome that most accurately describes cases similar to that of the original paper from Capgras and Reboul-Lachaux comes from Berzon: "The delusional belief in the existence of doubles of others or of oneself or of both"<sup>9</sup>. However, since misidentification may occur even in the absence of the belief in doubles, Capgras' syndrome is sometimes used to describe patients who believe that someone (usually one or a few close relatives) are simply impostors. We believe the case described in the present report can be regarded as a special form of Capgras' syndrome, where the patient does not state his parents are doubles but still regards them as impostors.

Besides the aforementioned common concern on the narrow definitions of DMS, we also believe that the specific characteristics of single presentations of such syndromes have not been described closely enough, hence leading to the creation of a group of syndromes very un-specific of a defined psychiatric disorder. While several authors consider these specific psychotic conditions as possible clinical manifestations of well-defined psychiatric disorder<sup>10,11</sup>, other authors wonder whether they could be different disorders or unusual presentations of pre-existing DSM-5 conditions<sup>10</sup>. Furthermore, the analytical description of these psychiatric conditions is absent in the modern diagnostic categories<sup>12</sup>. As a matter of fact, though classically regarding such delusional contents as "syndromes", clinicians never use them in psychiatric practice as diagnoses per se, simply regarding them as useful tools to diagnose a broader psychiatric disorder (like schizophrenia, to name one). A recent systematic review of 255 published cases of Capgras' syndrome<sup>13</sup> reported that the three most frequent diagnoses in which it manifested were schizophrenia (32%), organic psychosis (19%) and dementia (15%). We believe there is some specificity in the clinical presentation and pattern of creation of these syndromes, and that the exploration of their characteristics may shed light on the underlying disorder in cases where the DMS is the only manifest symptom. Therefore, we present the case of a patient whom, though not being in his first psychotic episode and already having a diagnosis of schizophrenia, embodies what we believe are peculiar traits of schizophrenic Capgras' syndrome.

## Case report

The patient was a 44-year-old man with untreated chronic schizophrenia, admitted to the ward due to an acute psychotic episode. Angelo, as we will call him, was in a state of confusion, perplexity, a mild mixed affective state, and frankly delusional. He declared how he had recently discovered that his parents were both of the opposite sex, i.e. his father was actually a woman and his mother was actually a man, and that therefore they were not his real parents. When asked why his parents would have had to lie to him all this time, paranoid thoughts emerged, as he claimed that their true goal was to obstruct him from pursuing the catholic faith. Angelo also told us the story of how he had the huge revelation: a couple of months earlier he received what he described as a gentle, delicate look from his father, and this clearly showed that he was a woman, since (as he said) men don't give this kind of looks; then, after a few weeks, his mother fell and hit her knee on the ground, and while showing the injured part to Angelo, he clearly understood (though not directly seeing them) that she had male genitalia between her legs. During the hospitalization, as the medications slowly showed effect, Angelo became progressively less confused and paranoid, and by the time of the discharge (22 days after the admission) he no longer believed his parents were impostors, nor of the opposite sex.

During the hospitalization, extended laboratory tests did not reveal any significant abnormality. Cranial MRI, EEG and ECG were all unremarkable. Clinical internal and neurological examinations were both normal. Results of the MMPI-2 mainly showed a lack of dominance, a low perceived need for psychiatric treatment, a weak sense of his assertiveness, a difficulty in being in contact with his desires and last a slight degree of psychopathy and paranoia. During the permanence in our ward the patient was treated with paliperidone 9 mg/die, lithium carbonate 600 mg/die, citalopram 10 mg/die and clonazepam 10 ml 2.5 mg/ml 30gtt/die. The choice of therapy was motivated by the fact that in the conditions of acute delusion, in addition to the obvious choice of an antipsychotic drug, it is also necessary to control the patient's behavior and stabilize the mood condition that often provides the substrate for the delusional symptoms.

## Discussion

As mentioned earlier, Capgras' delusion is not specific of a defined psychiatric or medical condition. During the twentieth century, Capgras' delusion was thought to occur mainly in schizophreniform psychoses<sup>14</sup>, but after the publication of Ellis and Young's famous paper in 1990<sup>15</sup> the proportion of cases reporting the delusion in the context of medical (mainly neurological) disor-

ders notably increased. Still, schizophrenia survives as the most common diagnosis. A systematic review written by Pandis et al. in 2019<sup>13</sup> pointed out the underlying diagnoses of 255 cases of Capgras' syndrome. Of these, 144 cases occurred in the context of functional psychiatric disorder, while 111 had an identified organic etiology. The most frequent psychiatric diagnoses were schizophrenia (32%), schizoaffective disorder (6%) and bipolar disorder (6%), while the most common medical conditions were organic delusional disorder (19%) and dementia (15%). The clinical features of Capgras' delusion in the mentioned disorders were somewhat different: though no difference emerged in gender, organic delusions had a statistically significant prevalence of misidentifications concerning the spouse and inanimate objects, while the misidentification of a parent was significantly more frequent in psychiatric conditions. Intuitively so, symptoms associated with Capgras' delusion also differed between functional and organic cases: the presence of paranoid thoughts, auditory hallucinations, formal thought disorders and aggression were all statistically predominant in psychiatric syndromes, while visual hallucinations were more frequent in organic causes of the delusion.

The delusional misidentification syndrome we described shows in our opinion a pattern of development typical of schizophrenic conditions. Though Capgras' syndrome has been classically associated in some cases with prosopagnosia<sup>16</sup>, given that Capgras himself saw at its core a natural dissociation between recognition and identification of familiar faces<sup>17</sup>, most cases of purely psychiatric Capgras' syndrome show a pattern of formation that goes beyond a static and permanent inability to assign familiarity to known faces. We state that true psychiatric misidentification delusions stem from acute episodes characterized by pre-delusional mood or deep mood oscillations that generate "rumor", i.e. temporary interference in perception that impair one's ability to recognize familiar faces<sup>18</sup>. Once perception is altered, once it becomes "delusional", even from intact logical abilities can develop a delusional misidentification syndrome<sup>18</sup>. This developmental pattern of certain cases of Capgras' syndrome, as the one described earlier, seems to us very specific of schizophreniform disorders, and thus could lead to more precise diagnosis and treatment in cases where no other psychiatric or medical symptoms occur.

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