ASSESSMENT AND TREATMENT OF A CASE OF RECURRENT VOMITING IN A HETEROSEXUAL SOCIAL INTERACTION SITUATION

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This article describes the evaluation and treatment of a 24-year-old man showing a recurrent vomiting pattern in situations involving going out for lunch/dinner (especially if accompanied by women) and heterosexual interactions that could lead to greater intimacy. The treatment took place over 36 sessions in which various techniques were combined and oriented in three different directions: 1) To eliminate the conditioned anxiety response, using Breathing Control Techniques, Systematic Desensitization and Gradual “in vivo” Exposure, 2) To modify irrational ideas about the fear-eliciting situations using Systematic Rational Restructuring and Instructional Training, and 3) To improve interpersonal skills through Assertion Training. After the treatment the vomiting conditioned response was eliminated, and the number of negative thoughts before, during and after the problematic situations considerably reduced, leading the subject to participate in more leisure activities and social interactions (including lunch/dinner and heterosexual interactions) and actually being able to enjoy them. The results persisted after a six-month follow-up.

Se describe la evaluación y tratamiento de un varón de 24 años que acude a consulta por la aparición de vómitos ante situaciones en las que se ve forzado a salir a comer/cenar con personas que no sean de confianza (sobre todo mujeres) o en aquellas situaciones de interacción social con una mujer que pudieran dar lugar a una mayor intimidad heterosexual. El tratamiento se llevó a cabo en 36 sesiones en las que se combinaron varias técnicas orientadas en tres direcciones: 1) Reducir la respuesta condicionada de ansiedad somática ante los diversos estímulos utilizando entrenamiento en respiración, Desensibilización Sistématica y Exposición Gradual “in vivo”; 2) Modificar las ideas irracionales que se presentan ante las situaciones problema específicas y, más en general, las referidas a lo que debe ser una relación de pareja o “la pareja ideal”, utilizando Terapia Racional Sistématica y generación de auto-instrucciones positivas; 3) Mejorar las Habilidades Interpersonales del sujeto a través del entrenamiento en negación asertiva y expresión de emociones. Tras la intervención se eliminó la respuesta condicionada de vómito, se redujo notablemente el número de pensamientos negativos antes, durante y después de las situaciones problema, y se produjo un incremento significativo en actividades de ocio e interacciones sociales (bien que pudieran dar lugar a comidas/cenas, bien a situaciones de intimidad con mujeres) y a un mayor disfrute de éstas. Los resultados se mantienen tras seis meses de seguimiento.

Social phobia, or social anxiety disorder, is characterized by the fear generated by social situations in which the person considers him or herself exposed to the judgement of others. It can be distinguished from social anxiety or what is commonly known as “shyness” by the avoidance of a large number of interpersonal situations, given that subjects attempt to avoid those situations in which they may show symptoms of anxiety or behave in a way that might cause them embarrassment (Echeburúa, 1993). The DSM-IV (A.P.A., 1994) recognizes two types of social phobia: Discrete (when the person fears only one or two specific situations) and generalized (diagnosed when the person fears the majority of social situations). The social situations most frequently feared include initiating and/or maintaining conversations, going to parties, going on a date, behaving assertively (e.g., expressing disagreement or denying a request), giving and receiving compliments, eating/drinking in public, and so on (Hope, 1993). In general, social phobia is a complex disorder that tends to present itself in a multiphobic way, that is, the subject presents generalized anxiety with respect to the majority of social interactions (Salaverría and Echeburúa, 1998; Turner, Beidel, Cooley, Woody and Messer, 1994). According to Stein (1995), an aspect common to these situations is the fear of negative judgement by others, thus differentiating it from the majority of phobias.
(including agoraphobia), in which the person feels physically threatened. For this reason the appropriateness of the term “social phobia” for describing this clinical syndrome is debatable, since what really provokes fear in these subjects is being negatively judged, and not the social situations themselves.

Social phobia is a widespread disorder, occupying fourth place among anxiety disorders in terms of prevalence, after specific phobia, generalized anxiety disorder and agoraphobia. It is estimated to affect between 2%-4% of the general population (Turner and Beidel, 1989; Davidson, Hughes, George and Blazer, 1993) and, in contrast to other anxiety disorders (more frequent in women), its incidence is considered to be similar in the two sexes.

A critical period for the appearance of social phobia is adolescence, especially early adolescence, when social awareness and interaction with other people start to become more important. However, patients tend not to seek professional help until 10 or even 20 years after the onset of the disorder, so that the age range of the clinical sample is 27 to 34 (Persson and Nordlund, 1985).

In its origin, this type of disorder tends to be progressive, though in some cases its development is identifiable after a negative social experience. The fact that social phobia, due to this progressive development, is not initially too invalidating may partly explain why the affected person does not at first seek help, requiring it only when his or her everyday life is seriously affected. Once developed, the disorder tends to be chronic and last throughout life if professional help is not sought.

Multiple factors have been considered in explaining the development of social phobia, among those related to family context (degree of sociability of parents, father-son relationship, etc.), developmental factors, personality factors (rigidity, hypersensitivity to rejection, exaggerated perception of somatic symptoms, etc.) and learning factors (primary or secondary social failure), as well as the interaction between them all (Gil, 1992). To conclude, like Mattick and Newman (1991), that in this type of disorder the interaction between psychological/biological vulnerability and environmental factors plays an important role is an imprecise generalization that does not clarify a great deal.

The behaviours most characteristic of social phobia include: a) motor behaviours, avoidance of and escape from social situations, even if these are sometimes carried out in a subtle way (for example, instead of completely avoiding a situation, being present but not participating); b) physiological behaviours: the most common symptoms are tachycardia, sweating, trembling, muscular tension, blushing and dizziness (Andrews, Crino, Hunt, Lampe and Page, 1994); c) cognitive behaviours, especially cognitive distortions, negative self-verbalizations, thoughts of social and general incapacity, excessive attentional focalization by the subject on his/her own reactions and thoughts, errors of attribution, which explain many conditioned emotional anxiety responses, and finally fear of social judgement. The execution of social behaviour in these circumstances may be highly deficient, thus reinforcing the anticipated cognitive schema (Hope and cols., 1989).

Although the case reported here fulfills the DSM-IV (A.P.A., 1994) criteria for the diagnosis of Social Phobia (F40.1), it can be considered atypical for various reasons. In the first place, the conditioning of the phobia has its origin not in a direct experience of failure or rejection in a social interaction, but in a casual association of an interpersonal situation (breaking up with his girlfriend) with aversive stimuli that conditioned an anxiety response.

Secondly, we should underline the disparity of the feared situations, grouped around two sets of stimuli: a) intimate situations or “dates” with a woman that is attractive to him, and b) situations of lunch or dinner outside of his own home. The situations of intimacy or “dates” with women have the common factor of “uncertainty”. They could be considered, according to Snyder and Ikes (1985), as “psychologically weak” situations, that is, relatively unstructured and ambiguous situations that do not offer clear signals for guiding behaviour. The uncertainty generated in the patient by these situations, with regard to the way he should behave, cause great anxiety. This response does not occur if, despite being with a woman, it is clear how he is to behave, for example, in situations of interaction with a woman in the work context. Thus, in this type of situation, the patient has doubts about the way to behave, even with respect to the objective to be achieved the “responsibilities” that would be implied by its achievement, and this leads to a perception of a lack of control. The key factor in the lunch/dinner away from home situations is the fear of negative judgement by others (except very close people) aggravated by the presence of vomiting, or the aversive nature of the vomiting response itself. This fear of others’ judgements is not present in social situations, even those with similar characteristics, if they do not involve lunches or dinners.

A third aspect to highlight concerns the cognitive responses in the two types of problem situations. Although it has already been mentioned that cognitive
factors are considered of great importance in social phobia, in this case they are decisive (above all when planning treatment). In addition to the fear of others’ judgements that is common in social phobia, of crucial importance in this case are, on the one hand automatic thoughts (present in both situations) with respect to the vomiting response, and on the other (exclusively in situations of interaction with women), marked irrational ideas with respect to how a relationship should be, roles, expectations, responsibilities, and so on. These are the product of the patient’s upbringing.

A fourth aspect relates to the most important type of physiological symptom, and that which led to the subject seeking help, the vomiting, quite uncommon in social phobia cases.

Below we describe the assessment and treatment of a case of social phobia restricted to: a) Situations involving lunches/dinners outside the home, and b) Situations of possible intimacy with a woman he finds attractive.

METHOD

Subject and history of the problem

The patient (S.) is a male aged 24, single, and currently working in a public relations firm. He sought therapy for the first time in October 1997 complaining of “a kind of phobia” that caused him to vomit when he went out to lunch or dinner with people that he “was interested in” (especially women).

The problem began some six years earlier, when S., on saying goodbye to his girlfriend before taking the bus back to his village, began to “feel ill” and ended up vomiting in the toilets of the bus station. S. remembered that it was a hot day, that the bus station smelt bad and that he had to go grape-picking (which he disliked profoundly), so that the situation was relatively aversive. He vomited for a second time, a few weeks later, with the same girl, this time in a discotheque. He said he has vomited on numerous occasions on which he is alone with a woman, whenever the situation may involve some degree of “intimacy” with her.

The patient comes from a strict and traditional family as far as moral values are concerned. He is the youngest of four children (two sisters and a brother), received a Catholic education from an early age, spent five in a seminary, and at one time considered being a priest. He describes his parents as figures with well-defined masculine and feminine roles (mother that does the housework, concerned about her children, very religious... Father authoritarian, strict, hardworking, the “intelligent” figure to go to when one has a problem...).

His opinions with regard to women are especially relevant to the case. S. groups them in two categories: “Alternative” and “Religious.” The first type would be those with “liberal” professions, who do not worry about their “behaviour in society”, “interesting and independent” women whom he nevertheless would not introduce to his parents. “Religious” women, on the other hand, would be those of which both his parents and his social circle would “approve.” He defines this second type as “the typical good girl, polite, who would help clear the table, a good student, someone with whom you could have conversation...”

His religious beliefs have been highly influential in his sexual behaviour. In adolescence, he says, they caused conflicts for him, due to his deep-rooted belief in refraining from full sexual relations before marriage. Although some of his relationships with women have reached high levels of sexual excitement (mutual masturbation), he has never had intercourse “because he does not want to have sex with a woman with whom he is not in love”. Despite the fact that S. presents an adequate repertoire of social abilities, it is clear that he also presents a deficit in the expression of emotions and some difficulty for denying requests in heterosocial interaction contexts.

The problem of recurrent vomiting presented by S. has become generalized over time to all types of lunches/dinners perceived as highly socially demanding, regardless of whether they are with members of the opposite sex. In the course of the assessment, numerous variables have been identified that modulate the intensi-
ty of the problem in these contexts. During the last four years, the patient has vomited on practically all the occasions on which he has been obliged to have lunch or dinner out, causing him to avoid, as far as possible, any situation of this type. Both intimate relations with women and social relations in general have been affected by fear of vomiting and “making a fool of himself.” The patient’s family and his closest friends know about the problem. It is important to stress that although there are no family antecedents of the vomiting response as such, the patient’s brother and sisters also report having occasionally felt high levels of anxiety in situations of intimacy with women and men, respectively. The patient has no gastric problems of any kind.

**Behavioural assessment**
The assessment was carried out in four sessions, by means of:
- Four interviews with the patient
- List of situations in which the problem has occurred
- Self-register of problem situations (see Table 1)
- Imagination in session of different situations that generate uncertainty with women and observation of responses at different levels (Physiological, Cognitive and Motor)
- Role-playing in session of situations of interaction with women.

**Delimitation/importance of the problem**
1. **Trigger stimuli:** (A) Situations that involve being alone with a woman in whom the patient had some kind of sexual interest and that generate uncertainty with respect to the way S. should behave, (B) Lunches/dinners perceived as highly socially demanding, with or without the presence of women, and (C) Situations in which S. perceives that there is a high level of social demand for approval of his female companion. Several variables were identified that affect the patient’s perception of the “seriousness” of the situations (see Table 2).

2. **Responses:** *Cognitive:* Perception of the situation as maximally self-demanding (“Everything has to be perfect”). Negative thoughts about the possibility/inevitability of vomiting and making a fool of himself, or of others noticing that something is wrong with him and questioning him about it. Fear of vomiting and/or making a fool of himself (see Table 3). *Physiological:* dryness of the mouth, “tingling” in the genitals, sweating, inability to concentrate on external stimuli (sensation of distance from reality), frequent urination, tension in the stomach, nausea and vomiting. *Motor:* Continues carrying out normal activities but in a “distracted” way, without becoming involved in social interaction, abandonment of the place or situation, search for signs of security (a place to vomit, etc.), drinking large quantities of water, playing with his food, etc.

3. **Consequences:** (A) Negative reinforcement of these behaviours in the short term, since either anxiety is reduced on avoiding/escaping from the situations, or activation is reduced through fear of vomiting. (B) Negative punishment, in the medium

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Self-register of problem situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/time of beginning and end of event</td>
<td>SITUATION</td>
</tr>
<tr>
<td>Where are you?</td>
<td>What are you thinking?</td>
</tr>
<tr>
<td>What are you doing?</td>
<td></td>
</tr>
<tr>
<td>What is happening?</td>
<td></td>
</tr>
<tr>
<td>Who are you with?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Variables that palliate/aggravate the problem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PALLIATE</strong></td>
<td><strong>AGGRAVATE</strong></td>
</tr>
<tr>
<td>✔ known restaurants, liked by the patient</td>
<td>✔ small, unfamiliar restaurants, with the tables close together, brightly lit and charged atmosphere (smoke, smell of food)</td>
</tr>
<tr>
<td>✔ large places, with space between the tables, quiet, soft lighting</td>
<td>✔ copious amounts of food, or food with which he cannot “play” (for example, a puree)</td>
</tr>
<tr>
<td>✔ being close to or opposite a window</td>
<td>✔ dinners</td>
</tr>
<tr>
<td>✔ if the meal is in the form of a “buffet” or snacks, so that he can serve himself as much or little as he wants</td>
<td>✔ “formal” meals</td>
</tr>
<tr>
<td>✔ being with his family or close friends</td>
<td>✔ sitting a long way from the toilets, or with difficult access to them</td>
</tr>
<tr>
<td>✔ lunches instead of dinners</td>
<td>✔ if on inspection of the toilets, they are found to be small and dirty</td>
</tr>
<tr>
<td>✔ if on inspection of the toilets, they are found to be spacious and clean</td>
<td>✔ being with a girl in whom he is interested, or vice-versa</td>
</tr>
<tr>
<td>✔ being close to the toilets, with easy access</td>
<td>✔ being with a group of people (not close friends) that encourage him to “have a good time”</td>
</tr>
<tr>
<td>✔ if the decision to have lunch/dinner is spontaneous</td>
<td>✔ having dinner at his girlfriend’s house, with her parents</td>
</tr>
<tr>
<td>✔ if the lunch/dinner is not “formal”</td>
<td>✔ knowing in advance that he is going out for a meal</td>
</tr>
<tr>
<td>✔ having a conversation he considers interesting during the lunch/dinner en question</td>
<td>✔ not having anything to talk about with those around him (“pregnant silences”), or not finding the company interesting</td>
</tr>
</tbody>
</table>
and long term, through the privation of activities that may be gratifying for him.

Analysis of sequences/parameters

For a better understanding of the problem, two types of situation are distinguished: 1.- Lunch/dinner situations in general, and 2.- Situations of interaction with women.

| Table 3  |
| List of thoughts, before and after treatment, in the two main problem areas |

### AT START OF TREATMENT

- I don’t know if she’ll reject me...
- I don’t know if she’ll like me...
- If “try something” I might offend her
- I think she’s “after me”...
- If I say NO she’ll be angry....
- I won’t be able to act “normally”...
- I won’t “get off” with women, they get off with me...
- It’s better that she phones, because then I know she’s really after me...
- I’m so nervous that I overact, I’m not myself...
- I have to be the ideal man, because she’s the woman of my life
- If I were really in love with her I have to tell her I...
- The conversation has to be interesting all the time...
- If I’m with her I have to tell her I love her because otherwise she’ll get angry...
- Images of a wedding come into my mind

### NOW

- I don’t have to interpret the signs quickly
- Live the moment
- Go through the probabilities
- I don’t have to draw conclusions
- Lightly, look for the evidence
- I’m going to enjoy myself
- I’m going to see if I really like being with her
- I don’t have to like everything about her, I’m going to analyze what I like and what I don’t...
- I’m going to give myself time
- I’m going to find out the truth
- Looks isn’t the most important thing
- If there’s something about her I don’t like, I can tell her

### LIST OF THOUGHTS IN LUNCH/DINNER SITUATIONS

<table>
<thead>
<tr>
<th>AT START OF TREATMENT</th>
<th>NOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’ll have to look for excuses for not going</td>
<td>The fact of having some symptoms doesn’t mean it’s going to happen...</td>
</tr>
<tr>
<td>I’m going to be ill</td>
<td>I’m a little nervous but I have strategies to control it</td>
</tr>
<tr>
<td>I’m definitely going to vomit</td>
<td>I can use breathing</td>
</tr>
<tr>
<td>I hope I get to the toilets</td>
<td>I can control it</td>
</tr>
<tr>
<td>The crisis is beginning (seeing the first symptoms)</td>
<td>yuhuuuu!!</td>
</tr>
<tr>
<td>Images of the moment he begins to retch</td>
<td>I’ve done this before</td>
</tr>
<tr>
<td>I have to get out of here</td>
<td>It’s a test for me and I’m doing well</td>
</tr>
<tr>
<td>They’ll notice something’s wrong with me</td>
<td>We’re on the right road</td>
</tr>
<tr>
<td>I don’t feel like explaining if they ask me</td>
<td>On other occasions I was more nervous</td>
</tr>
<tr>
<td>I have to pretend I’m understanding the conversation</td>
<td>I’ve done it well</td>
</tr>
<tr>
<td>I have to pretend everything’s fine with me</td>
<td>I’m getting there</td>
</tr>
<tr>
<td></td>
<td>I’ll eat little by little, I don’t have to force myself</td>
</tr>
<tr>
<td></td>
<td>I’m going to enjoy the moment</td>
</tr>
<tr>
<td></td>
<td>I’m going to have a good time</td>
</tr>
<tr>
<td></td>
<td>Be yourself...</td>
</tr>
</tbody>
</table>

1. Lunch/dinner situations

**First time:** (At his girlfriend’s house, four years ago). After going for a walk, they decided to eat at her house. He was given fish with potato omelette, which he said was “a bit raw.” Although he didn’t like the food, he didn’t dare say anything, and began to feel “most uncomfortable.” Thoughts came into his mind such as: “Why is she telling me this?” “She talks nothing but nonsense”. He began to have doubts about the relationship (“If I really loved her, I’d be interested in everything she said”) and to perceive that “she’s not behaving in a natural way”. He began to detect physiological symptoms (nausea and “befuddlement”) and an increase in the level of anxiety on “having to pretend he was paying attention to the conversation.” The patient “had to escape” from the situation, after which he vomited in the street. After this episode S. began to “fear” that something similar would happen to him again.

**Last time (and least serious):** 28th October 1997 (just before the first therapeutic interview). A female colleague from work suggested they have lunch together. Although other colleagues would arrive later, the two of them went on ahead. On the way to the restaurant, S. began to feel “bewildered”, incapable of concentrating on the conversation. He started up a recurrent self-dialogue (“I’m going to vomit...” “There’s no reason why I should vomit, it’s silly...”), at the same time as he identified symptoms of anxiety such as dryness of the mouth, tingling in the genitals, tiredness (even yawnning), need to go to the toilet, etc. As soon as he arrived at the restaurant, S. went to the toilets, though he did not vomit. On his return, he sat next to his female colleague, and a few minutes later the others arrived. Although he reports feeling hungry, he ordered only a salad. He describes the situation as problematic due to the presence of physiological symptoms and negative thoughts, despite the fact that he did not reach the stage of vomiting.

**More serious:** Dinner to celebrate the end of the post-graduate course. Among the group was a woman with whom he had “gone out”. He was keen on going to the dinner, but throughout the day he had recurrent thoughts about the possibility of vomiting. He sat in a corner, surrounded by people he hardly knew. He scarcely spoke during the dinner, worrying about physiological symptoms, and about what would happen if he vomited. They
asked for various snacks to share (tapas), he was pleased, “because no-one would realize whether he was eating or not” (since he was afraid of being asked why he wasn’t eating, and looking a fool. Halfway through the dinner the physiological symptoms came on, and he felt nauseous, but he continued to make an effort to eat. He vomited in the corridor, before reaching the toilets, though no one at his table saw him. When he came back they were ordering dessert, and although he still felt ill, he also asked for something (to avoid them asking why not), but he couldn’t finish it. He felt very tired, and decided that after dinner he would go home. At that point he began to feel better.

2. Situations of interaction with women

First time: Six years ago, the situation in the bus station already described.

Last time: September 1997. S. and a friend had invited two girls to their house, but only the one S. was interested in turned up, and his friend left them alone. S. was “nervous” because there had been talk of his chances of having a relationship with her. S. felt that the girl was flirting with him all the time (“her bra was showing”, “she was looking at me in a suspicious way...”). The physiological responses already described began to become more intense; at a cognitive level, the patient hesitated over whether to make the first move, and had difficulty concentrating on the conversation; and at a motor level he continued “chatting” with the woman, until finally he had to go to the toilet to vomit. When he returned he reports feeling “calmer”, and he made a move. She rejected his advance and the symptoms disappeared completely. There was no further episode of vomiting throughout the rest of the evening.

More serious: the patient does not identify a single occasion that was more serious, but he does describe a more serious period, coinciding with the seven-month courtship of a “very formal and religious” girl, with whom he claims to have been deeply in love (his most relevant relationship). During this period, S. vomited practically every time he saw his girlfriend (only at weekends), and in a variety of circumstances (in the metro, in the car, in the street, in restaurants, bars, etc.).

Less serious: October 1997, on a plane during a business trip, sitting next to a female colleague from the office. He had previously been talking to some colleagues about the promiscuity often found on this type of weekend trip. After take-off, the patient began to note some physiological symptoms (dryness of the mouth, tingling in the genitals, etc.) due to the presence of the female colleague, but which disappeared relatively quickly because “they were having an interesting conversation”, and he felt relaxed.

Evolution/course of the problem

The problem began six years ago when he vomited on saying goodbye to his girlfriend at the bus station. A few weeks later with the same girl, this time in a discotheque, he vomited again. The problem did not manifest itself again until around a year later, when he began a serious relationship with a “very formal and religious girl.” At that point S. became aware that he had a problem, since he vomited whenever he was alone with her. Moreover, from then on the problem became generalized to social situations of lunches/dinners. The physiological, cognitive and motor responses remain practically invariable over the years, giving rise to ever greater avoidance of problem situations that involve going out to have lunch or dinner, even though he has relationships with women, and only vomits in the company of some of them. At the time of coming to the therapy session, the patient stated that he had had no relationship with a woman during the previous year, and had avoided all type of social lunches/dinners, thus reducing the range of social activities he could enjoy.

Motivation and expectations

S. expected that as a result of the therapy he would be able to go out for lunch and dinner with friends and/or women that interested him quite “normally”, that is, without such situations producing great anxiety, and without the vomiting response. He also considered it very important to learn to control the anxiety he experienced on being in an “intimate” situation with women in whom he had some kind of sexual interest. He was highly motivated by the therapy, and keen to co-operate.

EXPLANATORY MODEL

Hypothesis of origin

The origin of S.’s problem can be explained according to the bifactorial Classical Conditioning/Operant Conditioning model. a): Classical Conditioning: by coincidence he associated being with his girlfriend in the bus station with a series of aversive events or situations: heat and bad smell in the bus station, depressed mood at having to say goodbye, anxiety due to anticipation of the
aversive stimulus represented by the fact of having to go and pick grapes... Together with these stimuli there appear a series of negative thoughts about the relationship (“I’m with her because of what others say”, “I’m not in love”, etc.). These stimuli provoke an anxiety response with considerable sympathetic activation that manifests itself through symptoms such as dryness of the mouth, tingling in the genitals, sweating, tension in the stomach, nausea and vomiting. b) Operant Conditioning: as a motor response to deal with this aversive situation (anxiety-generating), he moves away from his girlfriend, runs to the toilets to vomit and climbs quickly onto the bus. On escaping from the situation the symptoms begin to diminish, negatively reinforcing the escape response. From that point on, signs associated with being with his girlfriend (or a woman who could be his girlfriend) begin to provoke similar responses.

It would perhaps be appropriate to consider some predispositional factors that facilitated this type of association: a) Irrational ideas and expectations about the way a boyfriend-girlfriend relationship should be, b) highly traditional and rigid moral values, c) deficit interaction skills with women, and d) deficit in the expression of emotions and assertive responses.

Hypothesis of maintenance

It is clear, after repeated experiences, that there is a generalization of the stimuli that are capable of eliciting the anxiety response, and that they can be grouped around three sets of stimuli: a) being alone with women that are attractive to him (personally and sexually), which is a situation that generates uncertainty with respect to how he should act (in different contexts.); b) all types of lunches/dinners perceived as highly socially demanding (whether women are present or not); c) situations in which there is a high level of social demand for approval of his female companion. At the same time, there is a generalization of responses, with the presentation, apart from the physiological, cognitive and motor responses already mentioned, responses of fear of vomiting and negative thoughts related to these responses (“I’m going to vomit I’ll make a fool of myself...” “They’ll realize something’s wrong with me and I’ll have to explain...”)

The process of maintenance, though it can basically be explained from Mowrer’s bifactorial model, should incorporate some additional factors. The appearance of the situations described above leads to an intense anxiety response (with the physiological and cognitive components indicated). Anticipatory thoughts and the lack of appropriate coping behaviours for this situation mean that, if possible, the patient emits the only response that has been reinforced (avoidance of the situation). If this is not possible, he will try to reduce the intensity of the anxiety-producing situation by reducing his involvement (cognitive avoidance), and if, even then, the anxiety-producing value of these situations remains intense, the increase in sympathetic activation will lead to vomiting or escape from the situation. In either case the patient’s anticipatory thoughts with respect to the situation are fulfilled, so that the perception of non-control for future situations is maintained, and therefore also the emotional response of fear of vomiting.

Avoidance of/escape from the situations is maintained through negative reinforcement in the short term (reduction of present or anticipated anxiety responses), even if in the long term it becomes a negative punishment, since it involves a limitation of potentially gratifying activities. Moreover, the escape/avoidance response, like the cognitive responses, maintains the anxiety (see Figure 1).

Tests of hypotheses

The tools used for testing the hypotheses formulated were as follows:

- Register of thoughts when faced with the problem situations.
- Imagination in session of uncertainty-generating situations, registering responses at different levels (physiological, cognitive and motor).
- The very fact of being at a therapeutic session generated some of the symptoms in the patient (tingling in the genitals, dryness of the mouth, etc.), since it was a situation perceived as being of relative uncertainty, in the company of two women.
- Role-playing in session of interaction with members of the opposite sex.

INTERVENTION AND RESULTS

Objectives of the treatment and intervention programme

The objectives of the treatment and the techniques used for their achievement were as follows:

1. Control of physiological and cognitive responses to the stimuli
   a) Reduction of sympathetic activation: – breathing control
   b) Control of negative thoughts in problem situations: – positive self-instructions.
c) Elimination of the vomiting response: – systematic desensitization and gradual in vivo exposure.

2. **Modification of irrational ideas with respect to girlfriends**: Systematic Rational Restructuring.

3. **Improvement of interpersonal skills**: Training in assertive negation and expression of emotions through role-play and shaping.

It was considered an initial priority objective to reduce the anxiety response provoked by the stimuli and eliminate the conditioned response of vomiting. With this aim the following techniques were used: breathing training, systematic desensitization of lunch/dinner situations, in vivo exposure to lunch/dinner situations and generation of positive self-instructions. A second objective was to change irrational ideas in problem situations, as well as ideas with respect to women and the ideal partner, for which we used the Systematic Rational Restructuring procedure proposed by Goldfried (Goldfried et al., 1974; Goldfried and Goldfried, 1975; Goldfried, 1979, 1988). The third and final objective was to improve the patient’s interpersonal skills (especially heterosocial skills\(^1\)), for which we carried out training in assertive negation and expression of emotions by means of shaping techniques and role-play.

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\(^1\) Galassi and Galassi (1975), p.131, define heterosocial skills as:”Skills relevant for initiating, maintaining and terminating a social and/or sexual relationship with a member of the opposite sex”
### Description of the treatment by sessions

**Sessions 1-5:** Assessment and tests of hypotheses  
Sessions 1-5 were devoted to assessing the patient’s problem and carrying out the tests of the hypotheses. In addition to four interviews, S. was asked to draw up a list of all the situations he could remember in which the vomiting problem had manifested itself (both in interactions with women and during social lunches/dinners). The patient was also asked to fill out a self-register of problem situations, which included a description of the situation and the cognitive, physiological and motor responses before, during and after the situation, not only to provide information on past situations, but also so that he could registering in an effective way any problem situation that may arise at the present moment, and learn to detect the thoughts involved in the process. A session was devoted to the patient imagining a Friday night in his village, and to recount, in detail and step by step, what he would do if he had arranged to meet in a bar where a woman in whom he was “interested” would be. The patient was asked to begin from hours before getting ready, and to indicate thoughts and anxiety levels at all times. The end of the session was devoted to role-play situation of interaction with women (including situations that involved both the expression of emotions and assertive negation, among other aspects), with the aim of both assessing the subject’s heterosocial skills and confirming some of the hypotheses formulated.

**Session 6:** Information feedback and breathing training  
During session 6, the patient was given information feedback, including explanation of the origin and maintenance of his problem, the mechanisms of the vomiting response, and the treatment programme scheduled, and any doubts he had were resolved. The patient was given an information sheet on his problem.

Also in this session the patient was given breathing training, following the procedure outlined by Labrador, Puente and Crespo (1993), and told to perform the same exercises 2-3 times a day at home.

**Session 7:** Exposure Guide and coping techniques  
Ahead of an imminent and inevitable exposure situation (his company’s Christmas dinner), the 7th session was devoted to preparing the patient to cope with it as well as possible. He was indicated the possibilities for action and given an “Exposure Guide”, explaining the coping strategies to use during the dinner. Likewise, he was given a self-register card (see Fig. 6), with a view
to using this exposure (unprogrammed) as a source of information for obtaining a more precise baseline of the subject’s anxiety levels at different points of the exposure.

**Sessions 8-22: Systematic desensitization**

Sessions 8-10 were devoted to the construction of an anxiety hierarchy for the systematic desensitization (S.D.) of social lunch/dinner situations, since the patient’s work obliged him to frequently have lunch or dinner with people from his office. The construction of the hierarchy was problematic given the large number of variables that influenced the patient’s anxiety levels (type of restaurant, food, company, presence of symptoms, lunch or dinner, programmed or spontaneous, etc.), as well as the large number of situations that elicited the vomiting response. The final hierarchy, which included items related to lunches/dinners in all conditions (groups, women from work, women that interested him, etc.) comprised 17 Items (see Table 4).

Due to a succession of complications, 8 sessions were necessary to desensitize all the items of the hierarchy. Thus, initially the patient was unable to relax in the presence of the (female) therapists, so that in the early sessions he was guided to relaxation. He then imagined the items without following the pre-established image, adding may details and modifications, so that it was necessary to explain to him once more the objective and procedure, as well as training him in imagining accurately the situations of each item. Even so, the problem recurred. For example, in item 6, S. included in the last three trials a person different from the one established in the item, so that anxiety increased from 2 S.A.U. (Subjective Anxiety Units) to 10, and subsequently to 15. Something similar occurred in items 8 and 10, in which he added new details, even though in this case only in one of the presentations, as he realized and rectified the situation immediately. The same occurred in items 13 and 14. Despite the difficulties mentioned, the hierarchy was completed successfully, with all the items eventually being desensitized (see Table 4).

**Sessions 16-36: In vivo exposure**

Given that the patient vomited during his company’s Christmas dinner, this situation was taken as a baseline measure and it was prescribed for him to avoid any type of social lunch/dinner until having advanced up the S.D. hierarchy and improved his coping strategies. From session 16, the in vivo exposures began, complemented by S.D. The patient was trained to value (in S.A.U.) future lunch/dinner situations not controlled by the therapists, and it was prescribed that he expose himself only to those rated with anxiety levels lower than the items already desensitized in the S.D. sessions; nevertheless, he was given a degree of liberty to plan the exposures. He was asked to record the anxiety levels at six different points during the expositions (see Table 5), and to indicate on a scale of 0-10 the degree of satisfaction after them, as the probability of vomiting again in a similar situation.

The exposures were carried out in a gradual way (taking into account the variables that aggravated/helped the problem as criteria of “difficulty”) throughout the course of the treatment. They included both lunches/dinners programmed and controlled by the therapists and other, more spontaneous ones that occurred to the patient during the months of the therapy.

Some difficulties also emerged in the carrying out of the exposures. On the one hand, not all the variables could be controlled by the therapists (the atmosphere, the conversation, others’ reactions, quality of the food, etc.), and on the other, there was often overlapping between the two situations feared by the patient: lunches/dinners and interaction with women (such as when he went out for dinner with a woman to whom he felt attracted).

The exposures were grouped in four categories so as to aid their organization, since they emerged in a random fashion (see results section). Once a minimum of three exposures had been successfully completed in each category, the indications given to the patient were to continue the exposures (without following any particular criterion), to different situations that permitted generalization of the different variables, leading to a habituation to the anxiety response.

At this point the intervention began to be developed through cognitive techniques aimed at modifying the automatic negative thoughts that emerged before, during

<table>
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<tr>
<th>Moment to register</th>
<th>Perceived anxiety (0-10 SAU)</th>
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<td>1.- When you are told about an upcoming lunch/dinner</td>
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<td>2.-On the way to the restaurant</td>
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<td>3.-As you sit down at the table</td>
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<td>4.-When they bring you the starter</td>
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<td>5.-At the end of the lunch/dinner</td>
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<td>6.-On leaving the restaurant</td>
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<tr>
<td>Probability of vomiting in a similar situation (from 0-10)?</td>
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<tr>
<td>Level of satisfaction after the exposure (de 0-10)?</td>
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and after the problem situations. To this end the patient was trained to generate positive self-instructions and use them when automatic negative thoughts appeared, in order to prevent him focusing his attention exclusively on physiological sensations and on negative aspects of his behaviour. The patient was periodically shown graphs with the results of the different exposures in order to emphasize their effectiveness (habituation to anxiety) and offer him “feedback” on the progress made. In this way S. became aware of how, with the exposures, the subjective probability of vomiting in a similar situation decreased, while the degree of satisfaction in that situation increased; at the same time, he concentrated his attention on the achievements, and not on the negative experiences.

Sessions 14, 16, 21 and 24-36: Systematic rational restructuring
Following the systematic rational restructuring model, we carried out an intervention for modifying the patient’s irrational ideas in two basic areas:

1) Modifying the negative thoughts that emerge in the problem situations (interpretation of anxiety symptoms, excessive attention to physiological responses, maximum self-demand, etc.) both in lunch/dinner contexts and in heterosocial interactions, and

2) Modifying irrational ideas with respect to relationships with women (social approval of partner, categorization of women, roles, expectations, responsibilities, etc.).

The intervention was complemented with in vivo exposures and lasted until the end of the course of treatment, since, although the patient rapidly learned to identify, refute and substitute the negative thoughts, some ideas with respect to relationships with women were not easy to modify, and continued to generate anxiety in the patient. The importance was stressed at all times of putting into practice what had been learned in the sessions, with tasks continually being set for the patient to perform at home. In these tasks the patient was to refute and substitute negative thoughts that emerged both in the sessions and outside of them. He was provided with a self-register for these tasks (see Table 6), so that both he himself and the therapists could keep a check on progress in this aspect. An example of the application can be seen in Table 7.

Sessions 26-36: Social skills: Assertive negation and expression of emotions

Although on the whole the patient’s social skills repertoire was satisfactory, he nevertheless presented an inhibition of emotional expression and of assertive negation, especially in heterosocial relationships. He complained of having difficulties (which was confirmed in session through the pertinent tests of hypotheses) for refusing his partner’s demands, and he was especially worried about being incapable of expressing his emotions, or at least those he considered “inappropriate” (such as making a specific criticism of his partner or a more general one with respect to the relationship, expressing boredom at a given moment or lack of interest in a given topic of conversation, etc.) for fear that the other person (especially if it was a woman) might “misinterpret” what he said.
In order to deal with this aspect, various procedures were used. First, the concept of social skills was briefly explained to the patient, and subsequently in more detail those in which he presented deficits. Apart from the systematic rational restructuring already mentioned (which was also applied for modifying his ideas on the consequences of expressing his emotions and refusing requests) various strategies for dealing with these areas in an assertive way were discussed, and were rehearsed in session (using both role-playing and shaping techniques). The importance was stressed of performing tasks outside of the session for practising the skills in real life, using the patient’s verbal reports as a means of assessment of progress and providing him with continual feedback.

Sessions 37-42: Follow-up
Six follow-up sessions were carried out: the first three at 15-day intervals and the last three after periods of one, two and six months, respectively.

RESULTS OF THE INTERVENTION
With regard to the problem of vomiting in social lunches/dinners presented by the patient, once the S.D. and in vivo exposures were completed, the conditioned response of vomiting was eliminated, and the negative thoughts before, during and after these situations were reduced. At the same time, the patient progressively increased both the degree of satisfaction perceived in the situations (see Figure 2) and the perception of self-control during them, the estimated probability of vomiting thus decreasing progressively (see Figure 3). As a consequence of these changes, S. reported obtaining greater gratification from the social lunches and dinners, which led to elimination of avoidance behaviours and an increase in his leisure activities and his social interactions in general.

The development of the S.D. was indicated previously, and Figure 4 shows the evolution of anxiety as the exposures advance. The graphs present the different exposure sessions grouped according to the subject of the exposure, in four categories:
1. social lunches/dinners in the work context.
2. social lunches/dinners outside the work context with and without women.
3. lunches/dinners involving high social demand with persons of the same sex.
4. lunches/dinners with women that may lead to greater intimacy.

The anxiety levels during the exposures were not constant, rising sharply at specific point, as a result of the appearance of non-controlled variables (e.g., quality of the food, sitting next to an “interesting” woman, etc.)

The grouping of the stimuli indicated also facilitated the patient’s understanding of the achievements, taking into account habituation to anxiety, level of satisfaction and perceived self-efficacy. It can be observed how, as the patient exposed himself to a greater number of feared situations, anxiety levels decreased.

In spite of this advance, the responses of maximum self-demand that these types of situation provoked in the patient, due to his irrational ideas, led to his continued presentation of high subjective anxiety levels when faced with the situations, even though he was able to control the vomiting response. The cognitive therapy sessions aimed at modifying these irrational ideas, in conjunction with the exposures, helped to establish the mentioned results (see Figure 4).
Figure 4
Levels of anxiety in the 6 situations registered in Baseline and in the exposures grouped in 5 conditions according to situations and persons present.

Legend:
S-1:.-When you are told about an upcoming lunch/dinner
S-2:.-On the way to the restaurant
S-3:.-As you sit down at the table
S-4:.-When they bring you the starter
S-5:.-At the end of the lunch/dinner
S-6: -On leaving the restaurant.
Something similar occurred with the problem of interaction with women he found attractive. Although S. was now capable of going out for lunch or dinner with them and controlling the vomiting response, he continued to perceive these situations as being of maximum self-demand due to his irrational ideas with respect to women and partners. The cognitive therapy sessions led to S. learning to detect many of the irrational thoughts, modify them and identify the changes this modification produced in his physiological and motor responses. This part of the therapy was carried out at the same time as the exposures to these types of situation, which served as tests of reality to reinforce the establishment of the most adaptive and realistic thoughts (see Figure 4). Likewise, through systematic rational restructuring, an attempt was made to deal with the patient’s irrational ideas in situations with women, not now in the lunches/dinners context, but in situations of greater intimacy (expressing emotion, suggesting sexual relations, etc.); the patient substituted numerous thoughts by others generating positive emotions, decreasing the levels of self-demand imposed on him in the past. It would perhaps have been useful to carry out exposures to these situations, but given that the patient did not have a girlfriend it was difficult.

FOLLOW-UP
In the six-month follow-up, the patient presented an episode of vomiting in a situation of a dinner alone with an “interesting” woman, which he was able to interpret as a “slip” rather than a relapse. He correctly attributed these episodes to the emergence of thoughts of high expectation with regard to the woman with whom he found himself. This episode did not decrease the patient’s perception of self-control, but rather increased his capacity for detecting the irrational thoughts involved and restructuring them.

There were no further episodes of relapse during the follow-up. In the final session the patient reported being interested in a woman whom he defined in objective terms without using the standard categories for type of woman (alternative/religious). He indicated that he was coping normally with the heterosexual interaction situations with the woman (not showing anxiety, expressing feelings, not anticipating negative consequences, showing initiative and control in the handling of the situation and, of course, neither anticipating vomiting nor actually vomiting in lunch/dinner situations with a woman he finds attractive).

DISCUSSION
One of the most important things to note is the relatively atypical nature of the problem. It could be considered as a social phobia, and in fact fulfils the DSM-IV criteria for such a diagnosis, but the varied character of its symptoms, especially the relevance given to the vomiting, as well as the curious nature of the sets of stimulus situations that trigger the problems (eating in restaurants and situations of interaction with women), make it difficult to categorize it so simply.

Having reached an important degree of agreement on diagnosis with the DSM-IV it is perhaps less than politic to question this classificatory system, but it is clearly not sufficient for guiding an intervention. As argued elsewhere (Labrador and Larroy, 1998), it is necessary, after diagnosing the patient in accordance with the DSM-IV, to develop a behavioural assessment to identify, not only the most important specific behaviours, but also their determining factors and the functional relations that maintain them.

One of the aspects characterizing this case is the relevance of irrational thoughts with respect to social (heterosexual) relationships, and especially relationships with a partner (or “girlfriend”). It is true that, as in all social phobias, what is present is the fear of being negatively judged, more than the fear of physical harm, but these irrational thoughts, insofar as they orient inappropriately the client’s actions, are determinant in generating anxiety in these situations. The client has to face situations he perceives as being of high tension, and for which the only prediction he makes is that he lacks sufficient skills and will vomit. The central role of these irrational thoughts, beliefs and expectations calls into question the appropriateness of a diagnosis as “social phobia”.

It is also important to underline the atypical origin of the problem, at least as the client remembers it. Although, as in many other phobias (and also social phobias), a conditioning experience is involved, the anomalous feature is the type of experience. It is not related, as is usually the case in social phobias, to any type of failure in a situation of social interaction (e.g., acting clumsily or being the laughing stock of others, being rejected by a woman on “making a move”, etc.). His initial conditioning experience is associated with feelings of physical discomfort (heat, sweat, bad smells) and cognitive unease (negative feelings about going off to pick grapes) that have little relation with social interaction situations, except for the fact that the situation occurs in a bus station.
Another extraordinary feature of the case is the generalization the client subsequently makes to stimuli as different as lunches/dinners out, or situations of interaction with women he finds attractive. Generalization to these widely different stimuli may be partly explained by the fact that one of the experiences the subject reports as most intense (or most serious) occurs at his girlfriend’s house, precisely during a meal, even though when it occurs, he has already had experiences of vomiting in social relationship situations (with his previous girlfriend). Perhaps the fact of finding himself “forced” to eat when he feels nauseous (due to nerves at being with his girlfriend’s family) increased the client’s anxiety responses and the physiological symptoms or discomfort he perceived. This may have facilitated the conditioning of eating situations, even independently of the presence of a woman he finds attractive.

The appearance (and perhaps the generalization) of anxiety in situations of interaction with women the client finds attractive is easier to understand if we take into account the value of his irrational thought in relation to women and relationships with them. If the subject bases his thought and behaviour on ideas such as “I have to be the ideal man…”, “the conversation has to be interesting all the time…”, and similar ones, it is less than surprising that such high anxiety levels appear in these situations.

The importance of these thoughts, already stressed in the maintenance hypothesis of the problem, may indicate the appropriateness of having begun the treatment with the modification of these irrational thoughts. Such a possibility was considered, but it was opted for beginning the intervention by decreasing the response of anxiety and vomiting in lunch/dinner situations outside of his home with people other than “interesting” women for various reasons: In the first place, it was a more immediate problem, being perceived as more important and urgent by the client, since he had no intimate relationships with women, nor possibilities to start one, and yet he felt continually pressured to go out for meals by both his social circle and his workmates. Secondly, it was more straightforward to deal with automatic thoughts in the lunch/dinner situations that referred mainly to the uncontrollability and consequences of the vomiting response than the irrational ideas with respect to women and relationships, which were more complex and varied. Thirdly, dealing with relationships with women would require social skills training, but the client’s skills in social lunch/dinner situations were more than satisfactory: they were simply blocked by the appearance of intense anxiety responses.

It was to be expected, and indeed it was the case, that the intervention by means of S.D. and gradual exposure to lunch/dinner situations was able to reduce the anxiety and vomiting behaviour, but this effect would not necessarily be permanent as long as the irrational thoughts were maintained. Nevertheless, the fact that the two procedures achieved a certain reduction in the anxiety may serve as a reality test for the client with respect to the appropriateness of his new behaviour and the need to change his thoughts. This would favour two key elements in any therapeutic intervention: perception of behavioural improvements or changes and the generation of expectation of future improvement (Emmelkamp, 1982; Labrador, 1993).

It was in this context that the second phase of the therapy demonstrated its value, combining as it did changes in the client’s thoughts with exposure as a test of reality; special emphasis was given to this aspect, making sure to give feedback to the client about his behaviour with the aim of identifying the changes in his way of acting and the positive effects achieved.

One of the problems arising in the development of the intervention concerned the extent to which it was legitimate and appropriate to change the client’s irrational ideas, which were undoubtedly closely linked to his biography. Questioning deep-rooted beliefs in relation to matters considered personal, such as sexual partner relationships, is not only difficult but also somewhat controversial. For this reason, we considered the client’s irrational thoughts only insofar as they affected behaviour leading to feelings of personal unease. It was supposed that this initial modification, and the fact of having provided the client with strategies for modifying the thoughts, would make it possible for the client himself – having realized the value of this change in thinking – to apply the procedure in a gradual way, in his own context, to the rest of the irrational thoughts that hindered or altered the development of more adaptive behaviours, especially in social settings. At the same time, the perception of control generated by the effective use of these procedures (both systematic rational restructuring, and positive self-instructions, breathing control or exposure) was undoubtedly of immense value in the reduction of anxiety in the problem situations: the client perceives that he has resources (behaviours) for coping with them adequately.

A final consideration concerns other specific characteristics of the client. He was a particularly intelligent
and motivated young man, who took an intense interest in the treatment: he had all the characteristics of the “ideal patient” (young, high educational level, intelligent, comfortably-off...). It is likely that these characteristics had an influence in the achievement of such an important modification of his irrational thoughts. But at the same time they caused the treatment to take longer. S. constantly reconsidered all types of information, and in some cases tried to “help” the development of the therapy by contributing new “ideas” and questioning the therapeutic proposals, and this served to slow down the progress of the therapy. Nevertheless, on the positive side, it is hoped that the client’s attitude served to make the changes more consistent and permanent changes. The data obtained in the follow-up appear to indicate this.

REFERENCES