Intrusions and Inferences in Obsessive Compulsive Disorder

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This article compares two models about the nature of obsessional intrusions: one, that they are just ‘normal thoughts’ whose obsessional significance derives from their appraisal; the other, that they are specific inferences about thoughts and things, which form conditional premises and are part of the obsessional reasoning. Support for the first model comes from questionnaire studies showing that the content of obsessional intrusions is similar or even identical to intrusions in non-obsessional people. Also there is growing clinical evidence that addressing the appraisals made about the intrusions rather than the content of the intrusions alleviates OCD symptoms. However, regarding the second model, intrusions tend to be thematic; they do explicitly take the form of an ‘inference’ (X may occur) whose development can be traced to inductive logic; ‘intrusions’ can be modified by changing inference processes, and such modification alone can reduce OCD-related anxiety. It is proposed that both primary inference and secondary appraisal may form two separate parts of the same evaluative sequence, and both should be targeted in treatment.

INTRODUCTION

Amongst recent cognitive models of OCD, a distinction is generally made between initial intrusions and the subsequent development of obsessions. Largely, development is seen to depend on the way initial intrusions and perhaps accompanying emotions are interpreted. This interpretation, although in part driven by local concerns, may be nourished or fuelled by more pervasive schema involving estimations of probability, danger or responsibility or over-importance of thoughts, which prime the person’s reaction about proper ways of thinking and behaving (van Oppen and Arntz, 1994; Rachman, 1997, 1998).

The cognitive-behaviour therapy (CBT) approach to modifying obsessions in this case is to perhaps initially target local behaviour reinforcing and maintaining OCD symptoms (e.g. overt or covert neutralization and avoidance), but in the long run to modify core beliefs such as excessive responsibility which form the fertile ground for the obsession (Salkovskis, 1985, 1999). Such CBT used in conjunction with more traditional behaviour therapy (BT) techniques such as exposure and response prevention can achieve significant therapeutic gains (Freeston et al., 1997). Although the relative efficacy of cognitive therapy is uncertain as compared to traditional BT. This CBT model of obsessions is represented schematically as:

\[
\text{Intrusion} \rightarrow \text{Evaluation} \rightarrow \text{Reactions to the evaluation} \quad (\text{Salkovskis, 1999})
\]

But what of the initial intrusions which lead to the obsessions? They intrude unwanted and unloved, but from where and why?

INTERPRETING INTRUSIONS

Intrusions have been viewed as the outcome of ‘automatic processes’ (Salkovskis, 1989) and termed ‘mental flotsam’ (Rachman, 1993) or ‘commonplace...
Intrusions and Inferences in OCD

In this model, there is no such phenomena as an intrusion; rather there is an initial perception of a real event or object, followed by an inference about a related state of affairs, which in turn forms the conditional premise (if X then...) for a series of secondary deductions about consequences and how such consequences will be appraised and interpreted (by the person and others). Both models are cognitive accounts of obsession formation and are not essentially incompatible, although there may be differences in clinical recommendations. This article looks at how an inference model might add to understanding how and why intrusive thoughts achieve significance, and why obsessional behaviour occurs in response not to just any intrusion, but to an idiosyncratically distinct type of ‘intrusion’. Five points are highlighted: firstly, that obsessional intrusions with and without overt compulsions always take the form of inferences (‘maybe X will happen.’); secondly, that their content is thematic and personally significant; thirdly, that the experiences inferred in the intrusions are, in some clients, only ones which have never happened to the person in the form imagined; fourthly, that intrusions, unlike normal everyday thoughts cannot be easily modified by counter examples or counterfactual information or by observation; and fifthly that therapy aimed at modifying the content of intrusions only, can by itself induce a change in OCD behaviour.

THE NATURE OF INTRUSIONS: INTRUDERS OR RESIDENTS

Intrusions are defined as ideas, thoughts, doubts, images or impulses which intrude or interrupt the flow of consciousness (Salkovskis, 1999, p. 31). But intrusions do not occur in a vacuum. Intrusions do not just arrive haphazardly but are provoked by certain internal/external events. Although in current CBT practice identification of internal or external triggers may form part of the functional analysis necessary to evaluate the occurrence of intrusions (Rachman, 1998), these triggers are generally considered as circumstantial and are not featured as an integral part of the schematic model of obsessional development (e.g. Salkovskis et al., 2000, p.349). As in other problem behaviours, functional analysis clearly reveals an ecological context surrounding the appearance of OCD whether with or without overt rituals. The person passes someone in the street, and then doubts if an action occurred; or catches sight of a piece of paper on the table and

nuisance’ (Rachman, 1997). Intrusions thus, are part of our everyday stream of consciousness or the ‘brain chatter’ accompanying our everyday concerns, whereby thoughts in transit come and go incessantly. Such thoughts either spontaneously disappear or are dismissed easily by non-obsessional people on account of their non-obsessional reactions to them. The evidence for this view comes largely from studies which have noted an equivalence in content between normal preoccupations and obsessional intrusions (e.g. Rachman and de Silva, 1978; Salkovskis and Harrison, 1984).

In the CBT model, intrusions are converted into obsessions by virtue of their significance for the person. Earlier models proposed that significance could result from conditioned associations (Rachman, 1971) but in more recent models meaning is seen to derive from ‘the interpretations made by obsessional patients of the occurrence and/or content of the intrusions’ (Salkovskis, 1999, p. 31).

In evaluation, the particular intrusion and the significance attached to it are identified, and a key component in CBT therapy is normalizing the experience of intrusions, by helping patients to change their understanding of the significance of the occurrence and content of the intrusions. Hence therapy may have the effect of modifying the meaning (but not content) of intrusive thoughts to the kind of level experienced by most other (non-obsessional) people, but no direct attempt is made to change the content of intrusive thoughts. Several prominent CBT practitioners explicitly caution about taking intrusions seriously or mixing them up with the later appraisals responsible for the obsessional beliefs (van Oppen and Arntz, 1994; Steketee, 1999).

Challenging intrusions in therapy is clearly a mistake if they serve no direct role in maintaining the obsession. But is there another way to account for their arrival on the scene, other than that they are normal haphazard thoughts? An alternative model would be that they are not intrusions at all, but actual inferences. In other words, they are propositions arrived at (at some point formed through inductive/deductive reasoning processes) and retained as idiosyncratic patterns of response to a stimulus or situation, and are hence idiosyncratic, but at the same time consistent within individuals (in the way of other fixed inferences). This model can be represented schematically as:

| Internal/external percept | ———> Inference/conditional premise | ———> Secondary consequences and evaluations |

then thinks perhaps it will catch fire; or sees an attractive woman and then questions if she can read sexual desires; or experiences a frustrating creative situation and then has repeated doubts about the ability to compose music.

Whereas in OCD with overt compulsions the initial relationship between intrusion and environment is obvious (i.e. the person is leaving the house and closes the door, or is about to sit down and sees a ‘dirty’ chair, etc. ... and then the intrusion occurs), in OCD without overt compulsions, the intrusive thought can occur as a reflection upon an exclusively internal event. For example, initial thoughts of ‘God’, of ‘sex’, of ‘violence’ may be internal percepts reflective of a current religious, sexual or violent attitude, equivalent to the environmental trigger of seeing a door on leaving the house. Also, the client may mix up percept with reflection on the percept and report the obsessional thoughts as being about ‘God’ or ‘sex’ rather than about a specific doubt concerning what thoughts of God or sex might imply. In both cases, the intrusion develops subsequent to the registration of a percept and as such may be seen as part of a continued reflection on the percept. So, is it accurate even in ‘pure’ obsession to speak of the thought intruding? Does the thought ‘intrude’ into the stream of consciousness or is it a continuation of information processing by other means? Although much attention has been paid to separating obsession from intrusion and the consequent appraisal from a mental ritual (Rachman et al., 1996) or a coping strategy (Freeston and Ladouceur, 1997), there is relatively little in the way of equivalent guidelines to distinguish an intrusion from an internal or external percept.

In the inference model, the initial event in the obsessional sequence is not an intrusion, it is an internal/external percept tied to a current event or a memory. The person sees an object, hears a word or feels or remembers a situation, which then provokes the worrying intrusion/inference. In other words, as with other problem thoughts and behaviour, OCD intrusions occur in a context and have a situational profile where they are likely or unlikely to occur. The context may be a memory, a task demand, or mood-related. For example, a lady who was troubled by ruminating about an incident in her old employment, found the rumination was most likely to occur when she faced performing a particularly difficult task in her current job. In another client, memory of an incident in a summer camp provoked repeated thoughts that she might be blamed for events in the present. In a third client, feelings of insecurity about herself or her relationships would promote thoughts about appliances catching fire and lead to increased checking. The onset of the intrusion may then be contextual and linked to coping with current events and behaviours.

**INTRUSIONS AS CONDITIONAL INFERENCES**

According to the inference model, the initial OCD event is a percept, a representation or observation directly related to current non-obsessional thinking, feeling or behaviour. What follows is an inference in continuity with this internal/external event. A person locks the door, exits from the building and then thinks ‘maybe the door wasn’t closed properly’. A person leaves a group of friends and then doubts ‘maybe I said the wrong thing’, a person on a date becomes obsessed with the idea that the other person ‘may be able to read their sexual desire’. An orthodox religious client performing morning prayers thinks ‘maybe the prayers were not pronounced correctly the first time’. Someone hears a swear word on a television show, and thinks ‘maybe God is judging me just for hearing the word’.

The initial inference next becomes a conditional premise, and leads by deduction on to further consequences and up to the conclusion that the person cannot take the risk of not performing the ritual. ‘If the door isn’t closed, then I’ll be robbed, and lose all my valuables, that will be terrible, I better check’. ‘If she can read my desire, then she’ll believe I’m a dirty old man, she’ll be disgusted and God knows what else, I’ll be arrested for harassment, I’d better not go on the date’. ‘If God knows I’ve listened to that word, then I’ll be judged, unless I let him know better by saying it in my head and replacing it with good words’.

Often when the person reports the obsession, they will focus on the negative consequences of not doing the ritual, or on their own anxiety. But the distinct form of the primary inference and secondary consequences and appraisals can be revealed by using a logical template and tracing the consequences back to the initial premise.

Client (C): If I don’t check, the stove could catch fire (**consequence**).

Therapist (T): And the stove will catch fire if... C: If the stove is alight... T: And how would the stove be alight. C: Well, maybe it wasn’t shut off properly (**primary inference**)
This process of determining primary and secondary inferences is discussed in more detail by O'Connor and Robillard (1999). Although the secondary inferences follow logically from the primary inferences, the strength of primary inference and secondary consequences at baseline can be independent of each other.

In terms of ‘pure’ OCD where there is exclusively mental neutralization, Aardema and O’Connor (F. Aardema and K. O’Connor, unpublished data) have further suggested that what provokes the anxiety in obsessions, is the thought that the person ‘may have the thought’ rather than the fact that s/he actually had the thought. In other words, somebody troubled by thoughts of killing a child, is actually troubled by the thought of maybe having the thought about killing the child but without actually having the thought itself. This inferential confusion between thinking about the thought and actually having the thought (thought–thought fusion) is illustrated by Aardema and O’Connor (unpublished data) through a re-examination of the actual transcripts of several case reports in the literature, and also by examining transcripts of what occurs in analogue experiments of thought suppression (e.g. Wegner, 1994), where the instruction to not think about white bears produces a preoccupation with the task demand, not ‘pure’ thoughts of the white bears by themselves.

The inference model would appear, here, to be in conflict with observations that clients frequently report full blown ‘images’, ‘flashes’ or ‘scenes’ as intrusions. Imagery may intensify discomfort but the inference argument would be that such ‘imaginings’ are pictorial expressions of possible states of affairs, and as such spring from conditional premises about events which the ‘scene’ or ‘image’ then plays out. If then in ‘pure’ obsession without compulsion, the actual premise/intrusion always contains a ‘maybe’ clause, it may not be the actual thought of God, or the image of a naked woman, or the flash of an impropriety which leads to an obsessional reaction and appraisal. Rather, this initial percept becomes developed and embroiled into a conditional inference, ‘maybe I will have this thought or image’, and this conditional inference forms the source of the obsession.

**INTRUSIONS ARE THEMATIC**

OCD intrusions and behaviour are clearly domain specific. In any one client, the obsessions linked to a given ritual or other neutralizations concern not only a similar potential sequence of events, but relate to a specific theme. By implication, then, there are equally domains in the client’s life where the obsessional thinking does not apply. These OCD and non-OCD domains can be physically very similar. For example, a lady with impulses to harm feared only that children, not adults, might be hurt. So passing adults in the street evoked far less intrusive and obsessive thoughts than passing a child. Rachman et al. (1995) have also shown that cognitions concerning harm and responsibility are very likely to be idiosyncratic and context-dependent rather than trait-like features. But, why do only idiosyncratic scenarios evoke obsessional concern?

It might be argued that critical specific learning experiences together with a underlying vulnerability schema, such as an ‘attitude of responsibility,’ combine to target a specific content of intrusive thoughts as more aversive than other thoughts. There is some case study evidence suggesting that onset of OCD is linked to occurrence of a critical event, experience or thought (Salkovskis et al., 1999). But, if an attitude of responsibility sensitizes the person to exaggerate the consequences of danger in terms of personal blame (Salkovskis et al., 2000), why do not all potentially equivalent dangerous situations or thoughts elicit, at least somewhat, obsessional-like behaviour in clients with OCD. The answer is clearly that objectively similar dangers or threats are not subjectively evaluated as equivalent. Although general schema may explain the occurrence and frequency of obsessional reactions (Purdon, 1999), a general schemata such as: ‘I will be blamed, or ‘I will be held responsible’ has not so far been shown sufficient to predict the specific content of intrusions that, in any one client, will elicit obsessional-like reactions and appraisals, except that the content is likely to relate to harm (Salkovskis, 1996).

The specificity of obsessional concerns can be quite startling. Example: an investment broker responsible for large amounts of clients’ money has no job-related obsessions or excessive worries but is unable to handle paper or coin currency in everyday life because of fears of self-contamination and the fear he will contaminate others. A lady, whose catastrophic obsessional scenario is linked exclusively to her house catching fire and results in long checking rituals, is not at all troubled by the possibility of her house flooding, even though technically and objectively both are equally possible (she lives in flood zone). Both types of
events could result from her commissions or omissions and lead to the destruction of her house. A generalized appraisal reaction may be nuanced towards selective intrusions on account of susceptibilities learnt from critical early experiences; but this link has yet to be established, and in any case this notion simply brings us full circle back to the importance of analysing the content and context of the specific primary intrusions, in order to understand the idiosyncratic obsessional reaction.

Even where the content of the intrusion changes, as it may, over time, the theme of the inferred doubt can stay the same. For example, a lady is afraid to cross a street, take a bus, or go shopping, but the content of her obsessional intrusions always has the same theme: ‘a child might be hurt’ (and cry for help and she will hear it and not be able to help, etc.). Trinder and Salkovskis (1994) have noted that there are personally significant intrusions which might in themselves have special meaning. But the inference model would propose that the content of all obsession-related intrusions follows a personalized theme.

THE IMAGINARY NATURE OF INTRUSIONS

The imaginary nature of some intrusions supports the crucial link between underlying themes, intrusive content and obsessional development. In some people the feared experience or event has never happened in the specific manner foreseen in the intrusion. Conversely, in such cases, events which have occurred in the person’s life seem never to form the content of the intrusion even if these real experiences approximate the OCD obsessions.

Four Examples

Example 1
A lady checks the front door five times on leaving to go to work and looks back several times to see if her cat has escaped. She also looks and fixates on the door when in her car for a few minutes. But the cat has never ever escaped at the moment she leaves for work. However, it did escape in the summer when she was gardening and she left the back door open and the cat ran into the garden. However, this specific event does not form the content of any obsession or obsessional behaviour.

Example 2
A pharmacist has to compulsively count and recount the number of pills in a bottle, but she has never made a mistake counting pills. However, she did once make mistakes in labelling the bottles. This latter event does not and never has formed part of her obsessional repertoire.

Example 3
A man checks and rechecks the clothes in his wardrobe for ants, believing ants will lay eggs and eat and destroy them. This has never happened. Conversely, he has found moths in his wardrobe. Moths do not figure in any of his obsessions.

Example 4
A girl is preoccupied that she might unwittingly hit a passerby in the street as she walks along. This has never happened, but she did once accidentally knock someone down in a supermarket. But the thought of this latter event causes no concern.

The important point about these examples is that the probability and severity of the consequences and appraisals of the comparable events are objectively similar but only the imagined event provides the material for the obsession. Obviously, the CBT model recognizes that it is subjective comparisons between dangers rather than objective similarities which determine response equivalence. A client may for personal reasons fear assuming one type of responsibility rather than another, when in all outward aspects both appear to incur similar implications. The point, however, is that such revelations about the domain specificity of any particular OCD derive exactly from close analysis of the content and theme of the intrusion.

None of these clients cited was aware that the content of their primary inference/intrusion had never occurred. One client stated that the reason the imagined intrusion had never materialized was exactly because of her ‘precautions’ (neutralizing rituals). In impulse phobia, the intrusion may run counter to the person’s belief system and this could explain both the intensity and persistence of the emotional reaction to the thought and why the impulse has never occurred (Rachman, 1998). But this account does not explain the cases where comparable actual experiences do not intrude, even as possibilities. It might be that exposure to a real event reduces anxiety about it occurring, hence guaranteeing greater anxiety to imagined events. But such reduction with exposure
is not universal and vicarious exposure in the presence of a strong motivational state can produce incubation depending on stimulus and exposure parameters (Eysenck, 1982). Also, if we look, in the above clients, at factors maintaining belief in the possibility of the imagined inference, we find the inference supported not by genuine (if erroneous) calculations of probability but by an inductive-type narrative tying together irrelevant experiences, irrelevant ‘facts’, generalities and pure imagination. One justification given by client 3 for the inference that ‘ants might eat my clothes’ was: ‘I saw an ant on the towel in the bathroom once and also I saw one climbing up onto the plant, you see them in the park crawling over and eating leaves and grass—they’re small, they could get in and ruin anything’.

Here, then, is another factor difficult to fit within an exclusive appraisal model of intrusions. In some clients, the events inferred as possible within the intrusions are consistently ones that have never actually happened (for whatever reason). On a chance basis, if all intrusions were passing thoughts, whose meaning derived from their appraisal rather than their content, one might expect, in all clients, that on at least a few occasions the intrusions would relate to real experiences. Furthermore, in these cases, the inferred possibility of the imagined event is justified by a pre-mediated inductive narrative. In other words, the inference/intrusion derives from a reasoning process. The inference model, on the other hand, would not be surprised that an imaginary narrative always leads up to the same imagined inference.

DISPELLING INTRUSIONS AS OTHER THOUGHTS

It is common knowledge amongst clinicians that introducing real evidence or arguing facts with the client is more likely to feed into the OCD rather than alleviate it (e.g. Salkovskis, 1999). But why so? The appraisal model would certainly account for how interpretations about the content of intrusions maintain and facilitate an automatic adverse reaction to the content, and how concern with suppressing the content could increase frequency of occurrence. But the model does not readily explain why the content of the intrusion cannot be modified on the basis of factual information. If the content of intrusions is meaningful owing only to appraisal, one might expect a simple factual correction to dispel the content as with other passing thoughts. Conversely, if the content of the intrusions/inferences is genuinely irrelevant to the obsession and obsessional anxiety, then changing content (but not appraisals) should influence neither obsession-related emotions (ex. anxiety) nor the compulsive or neutralizing behaviour. But changing the narrative justifying the primary inference can have greater power than discrete counter factual information in reducing anxiety, and this tends to support the inference model of OCD. For example, the client who was convinced that insects could get inside his clothes and eat them had consulted experts at an insectarium who had reassured him of the inability of ants to perform such feats. But this counter-information had not reduced his ritual checking of his clothes for ants, since the narrative had weaved a way around the information (e.g. ‘Yes, but these may be particular types of ants, who the experts don’t know about’).

This technique of creating an alternative inductive narrative producing an alternative primary inference, can successfully, if only temporally, reduce anxiety about exposure to zero, within a session, as in the following abbreviated account from therapy session (S#48, session 16).

T: So can you pick the paper out of the waste paper bin?
C: No, I can’t touch it. … I told you, it’s been in the bin, that means it’s dirty
T: So if you touch it, what?
C: I can’t touch it, I’d have to wash my hands, you’ve no idea. … I wash and wash ‘cos I know it’d be dirty
T: Ya, but why is it dirty? I mean do you see dirt?
C: No, but it’s where it’s been. … in there, I mean you know it’s a waste bin, it’s dirty, it’s full of… I don’t know, like muck and stuff and people they throw things in, it’s dirty, they might spit, it’s disgusting, you know … I mean forget it
T: So what would convince you it wasn’t dirty?
C: Nothing
T: So, if we did a load of tests on the paper. I mean hi-tech tests, with experts and microscopes and they found no dirt, would that convince you?
C: I don’t know, I mean you know it’s a waste bin, it’s dirty, it’s full of I don’t know, like muck and stuff and people they throw things in, it’s dirty, they might spit, it’s disgusting, you know … I mean forget it
T: Well maybe several independent experts
C: I don’t know, I don’t know
T: Would you be more prepared to touch it if you knew about the tests?
C: (Hesitates). No. Would I… I don’t think so. No No
T: OK, now I’m going to tell you a story about the waste paper bin. Actually it’s ornamental, nobody uses it except me and I only put very clean pieces of paper in it. Nobody else is allowed near it, no dirty people come in here anyway, and there is no muck or spit anywhere about here. It’s cleaned thoroughly every night, and everyone who goes near the bin wears gloves before they touch it
C: You’re telling me that? Well if I believed that . . . are you serious?
T: Yeh, it’s perfectly clean. Look for yourself, for all the reasons I said
C: You’re sure?
T: Can you touch it now?
C: OK I’ll touch it, but only because of what you said. (Client touches paper)
T: Do you feel the need to wash?
C: No, not right now, because I believe what you said . . . But maybe later if I think about it . . .

Several authors have noted that people with OCD seem impervious to disconfirming information whilst ritualizing, and tend to use superstitious or hard-to-achieve stopping rules for ending the ritual (H. C. Richards, poster presented at the World Congress of Behavioural and Cognitive Therapies, Copenhagen July 1995). If the obsessional themes begin with inductive inference, this resistance would make sense, since inductive inferences based on ‘experience’ are hard to dislodge by discrete factual information (Johnson-Laird, 1986).

DISCUSSION

The distinction between calling initial thoughts, intrusions or inferences might not be a crucial one for current cognitive theories of OCD, if one could assume that the root of the obsession is always the interpretations which develop subsequent to the intrusions or inferences. If it is always the secondary appraisal alone which produces the aversive emotional reaction, then terming the initial thought an inference or an intrusion would be a purely semantic affair. But whereas intrusive cognitions are conceived as ideas, thoughts, doubts, images or impulses which intrude or interrupt the current stream of consciousness (Salkovskis, 1999, pg. 31), inferences are formed by an inductive narrative, which carries within itself, strong emotional themes and associations. In other words, if intrusions are inferences, then some meta-cognitive process has already been at work galvanizing past emotional experiences and associations together in order for the primary inference to appear. The inference model proposes that the obsessional reasoning begins before the appraisal and before even the arrival of the intrusive thought, with an inductive narrative which leads the person up to the disturbing inference of what ‘might’ be. The inference model would predict that: if all intrusions are inferences, they should all result from identifiable inductive/deductive reasoning processes.

It may be that the same meta-cognitive schema which dictate adverse appraisals, also condition the narratives producing the ‘primary’ inferences. If the inference forms the conditional premise for further deductions about the consequences of what ‘might be’, then both appraisals and intrusions form part of the same inferential process, and may perhaps be fuelled by the same or separate cognitive processes and/or constructs. However, as noted by O’Connor and Robillard, (1999), strength of belief in probability of the primary inference and in the likelihood of secondary consequences can vary independently. Furthermore, the primary inferences tend to be produced by inductive processes, and the secondary consequences and appraisals follow by deduction from the premises (i.e. If I have these thoughts, then . . . this means . . . (consequences/evaluations)). People with OCD tend to have no more problems than controls with deduction but do seem to differ in the way they apply inductive logic (i.e. when moving from the particular case to a general category; Péliissier and O’Connor, 2001). So reasoning problems may lie more with the primary inference process.

But, if the content of the inference reflects an instance of a larger appraisal schema, one might expect a strong correspondence between the two in terms of type of theme and strength of conviction. A primary inference: perhaps I’ve made a mistake in my letter, would be associated with an appraisal such as: even small things in life must be perfectly controlled. On the other hand, if the appraisal is a separate reaction to the possibility of the primary and secondary inference occurring, one might expect little communality in content between appraisal and primary inference, but perhaps a correlation between strength of appraisal beliefs and strength of belief in eventual secondary consequences. So an appraisal such as: I must always act responsibly would not be linked to a primary inference such as: perhaps the door is not closed, but rather to the secondary consequences: and then . . . I will be blamed for not locking the door.
Evaluations so far identified as potentially producing and maintaining obsessions within the appraisal model (e.g. the Obsessive Belief Questionnaire (OBQ-87), OCD Working Group, 1997) seem too general to permit predictions of the precise domain or theme of intrusions; which in any case is not their aim. So looking at the content of intrusions would be predicted to help in qualitatively refining OCD and non-OCD domains within individual participants. If the contents of intrusive thoughts vary within an individual over time, then the inference model would predict they retain nonetheless a common theme. The theme may of course be ‘symbolic’ and pertain to abstract as well as the physical characteristics of people or objects (Rachman, 1994).

If initial intrusions are really inferences arrived at on the basis of an inductive narrative, then clearly they should not be ignored when planning intervention. So a therapy aimed specifically and exclusively at modifying the inductive narrative supporting the primary inference/intrusion but not addressing appraisals, should modify not only the ‘primary inference’ and ‘secondary’ inferences but also OCD behaviour and associated discomfort. Since, as noted, appraisals and intrusions may be the product of distinct, although equally OCD relevant cognitive processes, it is unclear if such an intervention would modify appraisals. But it is clear that in some people, the degree of conviction in the probability of the primary inference may be weak compared to their conviction about specific consequences should the event occur. In others, belief in the probability of the primary inference is very strong, with the consequences less articulated. These relative strengths might decide whether therapy targeting appraisal or primary inferences would be the most appropriate to break the OCD-related cognitive-behavioural pattern. If the inference model of intrusions is correct however, it would predict that therapy which took account of both appraisals and the inference processes producing the primary intrusion would produce better outcome than one focusing on appraisals alone.

The arguments and predictions put forward here in favour of considering intrusions as inferences are mainly supported by clinical observations from the author and colleagues, and require further replication and extension. However, they do point to some discrepancies between the phenomenology of intrusions and the current cognitive view that they form part of the normal flow of thoughts (whose meaning derives exclusively from appraisal). Such discrepancies merit at the very least, further consideration and articulation within the CBT model.

ACKNOWLEDGEMENTS

The clinical work referred to in the text was carried out whilst the author was recipient of grant no: 970800 from the Fonds de la Recherche en Santé du Quebec.

Dr. Donald Bauthillier acted as co-therapist for client #48.

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