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## Cognitive Defusion

Jason B. Luoma and Steven C. Hayes

*Cognitive defusion* involves a change in the normal use of language and cognition such that the ongoing *process* of thinking is more evident and the normal functions of the *products* of thinking are broadened. Cognitive defusion is a descendant of *cognitive distancing*, a technique that dates back to the origins of cognitive therapy. Cognitive distancing consists of encouraging clients to detect their thoughts, and to see them as hypotheses rather than objective facts about the world. It has been long described as a "first, critical step in cognitive therapy" (Hollon & Beck, 1979, p.189) because it enables clinicians to teach clients to analyze, test, dispute, and alter negative thoughts through traditional cognitive techniques. As such, cognitive distancing is conceptualized as a preparatory step: necessary but not sufficient to produce profound change.

A contextual treatment originally termed "Comprehensive Distancing" (Hayes, 1987), was one of the first to attempt to alter the functions of negative thoughts by the use of extended and elaborated forms of cognitive distancing. Now termed "Acceptance and Commitment Therapy" (ACT; Hayes, Strosahl, & Wilson, 1999), this treatment attempted to reduce the believability and behavioral impact of negative thoughts, not by disputation and test, but by the relentless emphasis on seeing thoughts as thoughts. As such, thoughts are not so much hypotheses to be tested (as in traditional cognitive distancing) as they are habitual constructions to be noticed and integrated into a wide variety of actions. This expanded technique was named cognitive defusion (it is also referred to by its difficult to pronounce synonym "deliteralization")

both in order to avoid the dissociative connotations of the original term, and to emphasize the more comprehensive character of the process involved.

The purpose of cognitive defusion is to help clients who are caught up in the content of their own cognitive activity to “defuse” from the literal meaning of thoughts and instead become more aware of thinking as an active, ongoing, relational process that is situated, both historically and situationally. Cognitive defusion is based on a functional contextual theory of language and cognition called Relational Frame Theory (Hayes, Barnes-Holmes, & Roche, 2001). According to this view, thoughts acquire their literal meaning and much of their focused emotive and behavior regulatory functions, only because the social / verbal community establishes a context in which symbols relate mutually to other events and have functions based on these relations.

In recent years a number of related concepts and procedures have emerged within empirical clinical traditions that have similar goals, such as mindfulness procedures (e.g., Linehan, 1993; Segal, Williams, & Teasdale, 2001; see also chapter in this volume) and the use of metacognitive strategies (Wells, 2000). While it is clear that these concepts are closely related, the exact dividing lines are unclear. In this chapter the use of cognitive defusion in ACT will be emphasized.

#### Evidence for the Effectiveness of Cognitive Defusion

Data for the impact of cognitive defusion comes from several sources. Some indirect evidence comes from that fact that clinical improvement in traditional cognitive therapy tends to occur early, often before the disputative components of the treatment are deployed but after cognitive distancing is used. More direct evidence comes from the processes of change seen in outcome research on ACT, particularly with shortened forms of the treatment that have greatly emphasized the defusion component. Two small randomized controlled trials with depression,

one of individual psychotherapy and another of group psychotherapy for depression (Zettle & Hayes, 1987; Zettle & Raines, 1989), compared ACT to a complete cognitive therapy package. Data demonstrated that ACT clients displayed equivalent or superior clinical improvement in depression, but through different processes. Cognitive defusion reduced the believability of depressogenic thoughts more quickly than traditional cognitive methods, but not the occurrence of these thoughts.

A more recent randomized controlled trials is particularly relevant. It compared a 3 hour long version of ACT that greatly emphasized cognitive defusion to treatment as usual in the prevention of rehospitalization among psychotic individuals with active hallucinations or delusions (Bach & Hayes, in press). This very focused and brief version of ACT decreased rehospitalization by 50% over four months of follow-up. The process of change once again involved a rapid decrease in the believability of symptoms, but not in their frequency. Similar results have been shown for pain (Geiser, 1992; Hayes, Bissett, Korn, Zettle, Rosenfarb, Cooper, & Grundt, 1999), workplace stress (Bond & Bunce, 2000), and a wide variety of other problems, including panic disorder, social anxiety, anorexia, alcoholism, bereavement, exhibitionism, and generalized anxiety disorder (e.g., see Luciano, 2001).

#### Who Might Benefit from this Technique:

Cognitive defusion can be applied to any client problems that are exacerbated by entanglement with cognitive events. The preliminary data show that these procedures can rapidly alter the functions of these events. For treatment resistant clients who have failed in previous courses of cognitive behavior therapy, cognitive defusion hold out the promise of reducing the negative impact of harmful thoughts without having first to alter the form, frequency, or situational sensitivity of those thoughts.

### Contraindications of the Technique

The primary contraindication is treatment inconsistency. Cognitive defusion is aimed at undermining the excessive literality of thinking itself. Cognitive defusion thus does not combine well with approaches as these are specifically aimed at testing, disputing, arguing, suppressing, or controlling cognitive events, since all of these are heavily focused on the literal meaning of thoughts (e.g., the adequacy of evidence for truth claims). Clients with “brittle” cognitive systems can be agitated by the very idea of simply noticing thoughts without agreement or disagreement. Such clients (e.g., those with some obsessive disorders) tend to present difficulties for most forms of therapy, however, including traditional forms of cognitive therapy, and furthermore can sometimes improve through the use of defusion procedures.

### Other Decisions in Deciding to Use or Not to Use Cognitive Defusion

Cognitive defusion can be an important supplement to a number of other therapy approaches and techniques. It may be particularly well combined with more experiential and relational approaches that rely upon such techniques as behavioral activation (see Chapter in this volume), acceptance (see Chapter in this volume) and mindfulness (see Chapter in this volume). It should be used when the clinician has determined that intervention is needed to reduce the impact of a client’s thoughts, but the more lengthy and perhaps difficult process of cognitive disputation and correction is not desirable due to time constraints, past treatment failures with these approaches, or comparative data.

### How Does the Technique Work?

When we think a thought, the functions of the current situations are usually altered by the content of that thought because symbols are mutually related to other events. For example, when one thinks of a lemon, some of the reactions produced by an actual lemon occur, at least in

weakened form. For example, one may “see” a lemon and one's mouth may water. This process is helpful in most contexts. For example, a person thinking about how to fix a car can usefully go through the steps cognitively, “seeing” each step, before actually dismantling the car. Because many contexts are of this kind, people can come to interact with the world as cognitively organized without noticing that they are constantly organizing it. Verbal / cognitive constructions come to substitute for direct contact with events.

In clinical situations, however, this kind of cognitive fusion is often unhelpful and confining. When a panic disordered client imagines how they might be trapped and socially humiliated in a particular situation they are seemingly dealing with the problem of being trapped, just as the mechanic is seemingly dealing with a car. If the literal functions of that thought dominate over all other possible functions, the issue may become how to avoid public situations so as to avoid being trapped, and not any of a thousand other possible responses. Commonly, considerable clinical attention is given to such negative thoughts and experiences with the intent of getting rid of them. However, a number of studies demonstrate that attempts to suppress, eliminate, or alter negative thoughts and feelings may result in paradoxical effects, at times actually increasing the frequency, intensity, and behavioral regulatory powers of these experiences. Furthermore, because these thoughts can be automatic and well-established, altering them can be painstaking even well successful. Finally, this process can narrow the behavioral focus even more to the undesirable thought, when that very narrowness is part of the problem.

Emotions and thoughts achieve their power not only by their form or frequency, but also by the context in which they occur. In cognitive defusion, rather than trying to directly change the content or frequency of these private events, the context that relates them to undesirable overt behavior is targeted so as to induce greater response flexibility. An example of a specific

defusion technique will clarify this point. If a client rapidly says a word or phrase over and over again for a minute or two, two things will happen: the word will temporarily lose most of its meaning, and the sound of the word itself will emerge more dominantly (it is common for clients to say that they never realized the word sounded like that). The technique works best with one-syllable words (e.g., “milk”), but also works with two or three word phrases (e.g., “I’m bad”) if more time is spend repeating them. In this example as in all examples of defusion techniques, the word or phrase is still present but a non-literal context is created that diminishes their normal symbolic functions and increases their more direct functions (in this example, their auditory functions). Stated another way, defusion techniques teach clients to think thoughts as thoughts, not so much through logical argument or direct instruction as through changes in the context of language and cognition itself, so as to make responding more fluid and functional.

As a result, the literal functions of problematic thoughts are less likely to dominate as a source of influence over behavior and more helpful, direct, and varied sources of control over action can gain ground. A large body of literature shows that when individuals respond to stimuli in the environment based on verbal rules, insensitivity to the direct contingencies in the environment may result and the range of behaviors available may be excessively narrowed. Individuals may continue to apply the same “logical” solution even when that solution is not working in a particular context.

The contexts that are targeted by defusion techniques include those that establish literal meaning itself, such as in the repeated word example, but also contexts that encourage people to generate verbal reasons to justify their behavior, to control private events, or to be right about their explanations for actions. Cognitive defusion acts in part through establishing contexts in which sense-making is not supported, such as paradox, confusion, meditative exercises,

experiential exercises, metaphor, and undermining sense-making language conventions. Instead, clients are encouraged to focus on opportunities that the current environment affords and the workability of specific cognitive events in fostering effective action in that environment.

### Step By Step Procedures

Cognitive defusion techniques can be broken down into three major groups. First, clients are introduced to the concept that language may not hold all the answers: that there may be other more flexible ways of knowing that are beyond verbal knowing. Second, thoughts and emotions are objectified through various metaphors, leading to greater distinction between thought and thinker, emotion and feeler. Third various language conventions and experiential exercises are introduced to differentiate "buying a thought" from "having a thought," with the goal of teaching clients to evaluate thoughts based on their functional utility, rather than their literal "truth."

### Thinking Versus Experience

"Verbal knowing rests atop non-verbal knowing so completely that an illusion is created that all knowledge is verbal" (Hayes et al., 1999, pp. 153-154). Cognitive defusion begins the attack on clients' confidence in conscious thought by demonstrating its limits. The repeated word exercise (usual at first done with an arbitrary word such as "milk") is often one of the earliest. Clients are first encouraged to notice all of the perceptual functions of the word (e.g., what milk tastes like) and then after a minute or two of saying the word rapidly out, to notice how these functions have changed. This exercise quickly pulls back the curtain of literality and reveals the illusion language and cognition creates. Metaphors and examples can be used to demonstrate further the limits of conscious thought. A sample defusion metaphor is called *Finding a Place to Sit* (Hayes, et al., 1999):

Therapist: It's as if you needed a place to sit, and so you began describing a chair. Let's

say you gave a really detailed description of a chair. It's a grey chair, and it has a metal frame, and it's covered in fabric, and it's a very sturdy chair. OK. Now can you sit in that description?

Client: Well, no.

Therapist: Hmmm. Maybe the description wasn't detailed enough. What if I were able to describe the chair all the way down to the atomic level? Then could you sit in the description?

Client: No.

Therapist: Here's the thing, and check your own experience: Hasn't your mind been telling you things like "The world is this way, and that way and your problem is this and that, et cetera?" Describe, describe. Evaluate, evaluate, evaluate. And all the while, you're getting tired. You need a place to sit. And your mind keeps handing you ever more elaborate descriptions of chair. Then it says to you, "Have a seat." Descriptions are fine, but what we are looking for here is an experience, not a description of an experience. Minds can't deliver experience, they only blab to us about our experience elsewhere. So we'll let your mind describe away, and in the meantime you and I will look for a place to sit (p. 153).

The importance of experience can be revisited throughout therapy, as a way of cutting through excessive literal thinking. Comments such as "I don't want you to see this as a matter of belief, but to examine it against your experience," or "what does your experience say?" may help accomplish this end.

The limits of language can also be illustrated by examining how one learns any new skilled activity, such as a sport or hobby. For example, one could be described all the mechanics



of how to swim down the minutest detail of how exactly to hold one's hand, how to kick one's feet, etc. However, in order to actually learn how to swim, one needs to be get in the water and practice. This can be shown by asking the client to instruct the therapist in a motor behavior (e.g., "tell me how I can get out of this chair") and following each instruction generated by the client (e.g., "bend your arms and put your hands on the seat and push") with the question "how do I do that?"

### Objectifying Thought

The natural sense of distance between self and object often disappears when those objects are thoughts because the literal functions of thought become so dominant. People tend to act as if a thought is an adequate substitute for experience. Objectifying thoughts can help people handle their thoughts in more flexible and practical ways, in much the same way that external objects can be handled in multiple ways, depending on the purpose present in the moment .

Certain language conventions are helpful in that regard. ACT therapists often reaction to thoughts in playful ways, such as saying "Well, thank your mind for that thought" or congratulating clients for making dismal cognitive connections (e.g., Client "So then I thought I'd completely blown it" Therapist: "Ah, very nice. Beautiful.") as if in appreciation for how creative minds can be. Another verbal convention has to do with labeling the type of talk clients are engaged in, rather than responding to the content of what the thought is literally about. The therapist can, as an unelaborated aside, simply label client talk by type (e.g., "Evaluation. Very good." or ". OK. Feeling." Eventually clients can be taught to do this with their own talk, labeling evaluations as evaluations and feelings as feelings. For example, a client might verbalize the thought "I'm worthless." The client may be taught to say, "I'm having the evaluation that I'm worthless."

More extended metaphors can objectify thoughts as well. An ACT metaphor is the *Passengers on the Bus Metaphor*, which compares the relationship between a person and their thoughts to a person and bullies one has to fight against in order to live one's life (Hayes et al., 1999):

Suppose there is a bus and you're the driver. On this bus we've got a bunch of passengers. The passengers are thoughts, feelings, bodily states, memories, and other aspects of experience. Some of them are scary, and they're dressed up in black leather jackets and they have switchblade knives. What happens is that you're driving along and the passengers start threatening you, telling you what you have to do, where you have to go....The threat they have over you is that if you don't do what they say, they're going to come up from the back of the bus.

It's as if you've made deals with these passengers, and the deal is, "You sit in the back of the bus and scrunch down so that I can't see you very often, and I'll do what you say pretty much." Now, what if one day you get tired of that....You stop the bus, and you go back to deal with the mean-looking passengers. But you notice that the very first thing you had to do was stop. Notice now, you're not driving anywhere, you're just dealing with these passengers. And they're very strong. They don't intend to leave, and you wrestle with them, but it just doesn't turn out very successfully.

Eventually, you go back to placating the passengers, trying to get them to sit way in the back again where you can't see them....Pretty soon, they don't have to tell you, "turn left"--you know as soon as you get near a left turn that the passengers are going to crawl all over you. In time you may get good enough that you can almost pretend that they're not on the bus at all....However, when they eventually do show up, it's with the

added power of the deals that you've made with them in the past.

Now the trick about the whole thing is that the power the passengers have over you is 100% based on this: "If you don't do what we say, we're coming up and we're making you look at us." That's it. It's true that when they come up from they look as if they could do a whole lot more. They have knives, chains, and so forth. It looks as though you could be destroyed. The deal you make is you do what they say so they won't come up and stand next to you and make you look at them. The driver (you) has control of the bus, but you trade off the control in these secret deals with the passengers. In other words, by trying to get control, you've actually given up control! Now notice that even though your passengers claim they can destroy you if you don't turn left, it has never actually happened. These passengers can't make you do something ... you are just making deals with them (p. 157-158).

Later in therapy, this metaphor can be reintroduced when clients bring up troubling thoughts, feelings, or behaviors that they feel are getting in the way of moving towards their valued goals. A therapist might say, "so what passenger is bothering you now?"

Another defusion exercise that can help clients distinguish between themselves and the content of their minds is to have clients write personally troubling thoughts cards. These cards can then be carried around by clients as homework, literally allowing them to carry their troubling thoughts as objects and still perform their daily activities.

### A Thought is a Thought is a Thought

Cognitive defusion presents clients experientially with the distinction between looking *at* a world as thought presents it (i.e., buying a thought) versus looking at the world while simultaneously aware of the process of thinking and aware of the response alternatives present

and one of many alternatives (i.e., having a thought). This is often done through a variety of meditative and mindfulness exercises such as having clients, eyes closed, imagine a stream with leaves floating by on it and placing each new thought that comes up on one of the leaves.

Inevitably the stream stops, or people lose the exercise, when a thoughts comes along (e.g., “as I doing this right?”) that is not being looked *at* but is being looked *from*.

### Focus on the Functional Utility of Thoughts

All of the techniques in cognitive defusion are tied together by a common focus on the functional utility of thinking. Thoughts are not to be evaluated according to their literal truth or coherence with a network of understanding, but rather by their workability. In any given situation, the primary question the therapist and client should ask is whether buying a thought would move them towards a life in line with their chosen values, or whether it moves them in some other direction.

Various language practices and verbal conventions can serve to keep the client aware of the difference between the process of thinking and the products of thinking. When a client begins to describe reasons to justify behavior, the therapist can focus on the functional utility of these reasons through questions like (Hayes et al., 1999):

"And what is that story in the service of?" "Is this helpful, or is this what your mind does to you?" "Have you told these kinds of things to yourself or to others before? Is this old?" "If God told you that your explanation is 100% correct, how would this help you?" "OK, let's all have a vote and vote that you are correct. Now what?" (p. 164).

### **Conclusion**

Verbal understanding is very adaptive in many situations. However, the tendency for people to become fused with thoughts, to see them as literally true, as well as the tendency for

people to cling to and defend their own verbal constructions, can serve to restrict and narrow behavior and inhibit movement towards valued life goals. Cognitive defusion loosens the grip that excessive literality can hold on behavior so that more flexible and functional behaviors can emerge. Cognitive defusion can open up a world of possible behaviors that may allow an individual to move in a direction that is more in line with their chosen values.

#### Further Reading

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### Some Examples of Cognitive Defusion (Deliteralization) Techniques

'The Mind'	Treat "the mind" as an external event; almost as a separate person
Mental appreciation	Thank your mind; show aesthetic appreciation for its products
Cubbyholing	Label private events as to kind or function in a back channel communication
"I'm having the thought that"	Include category labels in descriptions of private events
Commitment to openness	Ask if the content is acceptable when negative content shows up
Just noticing	Use the language of observation (e.g., noticing) when talking about thoughts
Titchener's repetition	Repeat the difficult thought until you can hear it
Physicalizing	Label the physical dimensions of thoughts
Put them out there	Sit next to the client and put each thought and experience out in front of you both as an object
Open mindfulness	Watching thoughts as external objects without use or involvement
Focused mindfulness	Direct attention to nonliteral dimensions of experience
Sound it out	Say difficult thoughts very, very slowly
Arrogance of word	Try to instruct nonverbal behavior and respond to each attempt "how do I do that?"
Thoughts are not causes	"Is it possible to think that thought, as a thought, AND do x?"
Choose being right or choose being alive	If you have to pay with one to play for the other, which do you choose?
There are four people in here	Open strategize how to connect when minds are listening
Monsters on the bus	Treating scary private events as monsters on a bus you are driving
Who is in charge here?	Treat thoughts as bullies; use colorful language
Take your mind for a walk	Walk behind the client chattering like minds do, while client choose where to walk
And what is that in the service of?	Step out of content and ask this question
OK, you are right. Now what?	Take "right" as a given and focus on action
Why, why, why?	Show the shallowness of causal explanations by repeatedly asking "why"
Create a new story	Write down the normal life story, then repeatedly integrate those same facts into other stories
Carry cards	Write difficult thoughts on 3 x 5 cards and carry them with you
Carry your keys	Assign difficult thoughts and experiences to the clients keys. Ask the client to think the thought as a thought each time the keys are handled, and then carry them from there



