

Philosophical Principles of Logic-Based Therapy

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This paper will discuss the philosophical foundations and methods of Logic-Based Therapy (LBT), a cognitive-behaviour approach to philosophical counselling related to Rational-Emotive Behaviour Therapy (REBT).¹ It will then discuss some philosophical differences between LBT and REBT. Last, it will provide a case study illustrative of LBT.

Foundations and Methods of LBT

LBT starts with the ancient thesis that human action and emotion are primarily deductions from premises, in particular from a prescriptive rule - by which you tell yourself how to act, think or feel - and a report - by which you file your perception of particular fact or reality under the rule.² Aristotle referred to such deduction as practical syllogism.³ It is this broad concept of 'deductive logic' that is used in this approach.⁴

¹ For a recent discussion of REBT, see A. Ellis, *Overcoming Destructive Beliefs, Feelings, and Behaviors* (New York: Prometheus Books, 2001).

² See especially E. Cohen, *What Would Aristotle Do? Self-Control Through the Power of Reason* (New York: Prometheus Books, April 2003); 'The Use of Syllogism in Rational-Emotive Therapy', *Journal of Counseling and Development*, 66 (1987); Syllogizing RET: Applying Formal Logic in Rational-Emotive Therapy', *Journal of Rational-Emotive Therapy*, 10.4 (1992).

³ Aristotle, *Nicomachean Ethics*, Bk. 7, Ch. 4, note 14. I use the less technical term 'Emotional Reasoning' in *What Would Aristotle Do?* According to Aristotle, the conclusion of a practical syllogism does not automatically follow but rather, given its premises, 'the man who can act and is not prevented must at the same time act accordingly.' Aristotle, *Nicomachean Ethics*, Book 7, Ch. 3, 1147^a30. Similarly, LBT accepts that there can be internal and external conditions that prevent the conclusion of a practical syllogism from being deduced, or from continuing to be deduced. One such important condition discussed below is the construction of antidotal syllogistic reasoning that can be used to overcome the prescriptions of irrational practical syllogisms.

⁴ Some logicians who reject the idea of practical syllogism have found it untenable to use deduction in this inclusive sense. While it is beyond the scope of this paper to respond fully to such an objection, the value of extending the concept to include practical syllogisms having actions and emotions as conclusions can, in my experience, be justified by the practical advantages gained by being able to apply concepts of deductive logic in helping clients

LBT holds that people's irrational emotions and actions are largely driven by enthymematic⁵ practical syllogisms with false or unrealistic premises, especially where the prescriptive rule is not made explicit. This should not be confused with the psychological defence mechanism known as repression. The lack of explication that LBT primarily addresses is *suppression* of premises as distinct from their repression. In repression, a premise is kept at an unconscious level due to its perceived threatening nature. In contrast, a premise is suppressed when it is tacitly *assumed* in the client's reasoning as a condition of the validity of the reasoning.

In one respect, these processes are opposite. When a repressed premise is called to a client's attention, the usual response is to immediately and emphatically reject it as false, even if true. On the other hand, when a suppressed premise is called to a client's attention, the usual response is to immediately and emphatically *accept* it, to insist that it is true. Often, clients perceive these premises as self-evident and, therefore, in need of no defence whatsoever, even if they are fallacious. Thus LBT recognises that clients will often stubbornly and irrationally try to hang on to their suppressed premises when they become aware of these premises.

LBT holds that, by meta-thinking (thinking about their own reasoning), clients can get clear about what premises they are suppressing, and can expand their enthymematic reasoning to include these premises. It then helps clients to identify and *refute* exposed, irrational premises by using philosophical techniques such as counterexample and indirect proof (*reductio ad absurdum*). In this way, LBT helps clients to see just how they may be getting themselves into emotional and behavioural trouble without even realising it.

find troublesome premises in their belief systems.

⁵ An enthymeme is a syllogism with one premise omitted.

Further, LBT recognises the ability of human beings to overcome self-destructive behavioural and emotional conclusions of irrational syllogisms by constructing *rational* syllogisms. These further syllogisms function as *antidotes* to correct the irrational premises in the problematic syllogisms and prescribe more adaptive responses. Through exertion of *willpower* expended on the side of antidotal reasoning, humans can muster considerable power in overcoming and avoiding destructive emotions and actions deduced from their irrational practical syllogisms.⁶

To illustrate, suppose you feel depressed and justify your feeling with the purported fact that you have screwed up on the job - say, you have overlooked a blatant accounting error, which has cost your firm several million dollars as well as your job. So, your enthymematic reasoning goes as follows:

Report: I screwed up by overlooking that blatant error.

Conclusion: Depression about having screwed up, including cognitions of self-worthlessness; corroborative actions and tendencies such as refusing to get out of bed or look for another job; and bodily changes, feelings, and imagery that support and sustain the depression.

LBT accepts the theory that all emotions - including depression, anger, guilt, and anxiety - have or tend to have *intentional objects*, that is, they are *about* some event or state of affairs. Further, it holds that, by reporting the content of this object, the client can expose the report(s) from which, in conjunction with a rule(s), the emotion has been deduced. Thus, in the above example, the given report - of having screwed up by overlooking the blatant error - is what the depression is about, as well as a premise that files a report under a (suppressed) rule.

The suppressed rule under which the report is filed 'validates' the syllogism. The above enthymeme assumes a rule equivalent to the following one:

Rule: If I screwed up then I myself am a worthless screw-up.

The above rule 'validates' the syllogism because its conclusion - including the prescriptive content and

behavioural aspects of the depression - does not follow without it. The reasoning is practical *modus ponens*. That is, the report affirms the rule's antecedent (this is what is meant by saying that it is filed under the rule), and the conclusion (the depression) affirms its consequent by virtue of containing acts, thoughts, and feelings of self-worthlessness.⁷ The cognitive content of this emotive conclusion includes *whatever cognitions are logically deducible from the syllogism*. Thus, in the present case, it includes the prescriptive judgement, 'I am a worthless screw up' or the equivalent.

This approach also explicates the prescriptive force of the major premise rules of such practical syllogisms in terms of its capacity to direct both bodily as well as cognitive changes. Thus the above rule is implicitly a direction to one's self to *feel* as well as think and act depressed when its antecedent is affirmed. More exactly, when the rule is activated by a report affirming its antecedent, *neurological processes* are deduced that are associated with bodily changes during emotional episodes. These changes include sympathetic and parasympathetic neural responses - for example, circulatory and respiratory changes - as well as skeletal-muscular responses usually associated with voluntary, overt action.⁸

The specific *actions* deduced from a set of premises may be a function of additional, suppressed premises in a given client's reasoning. For example, an individual client may deduce staying in bed and not socialising with others, depending on what actions he or she has defined under the rubric of what it means to be a *worthless screw up*. These actions will vary with how the individual client subjectively fills in the variables in the premise, 'Worthless screw ups must do X, Y, Z.' Thus, strictly speaking, practical deductions typically form *syllogistic chains* that involve more than a single syllogism. For

⁷ A depression can be deduced from more than one rule. Thus some of its prescriptive content can also be deduced from another rule. For example, in addition to self-downing, the client may also have cognitions about the awfulness of having screwed up, as deduced from the rule, 'If I screw up, then it's terrible, horrible and awful.' As discuss herein, a plurality of (irrational) rules from which an emotion is deduced can also form a hierarchical, deductive chain, which I have called a *fallacy syndrome*.

⁸ The oddness of saying that a neurological response is *deduced* may be quelled somewhat on the assumption that neurological circuits operate digitally - like on/off switches interpreted in terms of truth-functional logic.

⁶ For an extended discussion of antidotes, see *What Would Aristotle Do?*

example, the present example may involve the following syllogistic chain:

Rule1: If I screwed up, then I myself am a worthless screw up

Report: I screwed up

Conclusion1: I am a worthless screw up

Rule2: If I am a worthless screw up, then I must stay in bed most of the day, and refuse to eat, bathe, and look for another job.

Conclusion2: I stay in bed most of the day, and refuse to eat, bathe, and look for another job.

Strictly speaking, all of the above premises are logically deducible from the syllogistic chain and can therefore be considered components of the client depression. For example, conclusion₂ is a behaviourally prescriptive component, while conclusion₁, along with the report (= intentional object) comprise further cognitions embodied in the depression.⁹

As stated, LBT teaches clients how to *refute* their irrational premises. For example, the obvious error in rule₁ is the compositional fallacy of assuming that an act of screwing up constitutes the individual as a screw up. Making a mistake and *being* a mistake are logically distinct, and therefore should not be confused. LBT also provides a catalogue of commonplace irrational rules and types of report from the repertoire of fallacies discussed by philosophers under the rubric of informal logic. It also incorporates the fundamental evaluative

fallacies discussed by cognitive-behaviour approaches to psychotherapy, especially REBT.¹⁰

Refutation of irrational rules and reports points to *antidotes*. Thus, the stated refutation of the above rule establishes the more rational rule,

Even if you've screwed up, you shouldn't regard yourself as a screw up.

This rule corrects the irrational rule in the previous syllogism by directing the client to desist from telling himself that he is worthless.¹¹

In desisting from such irrational self-rating, a client can then go on to construct other antidotal reasoning such as reasoning from a rule that prescribes learning from past errors to improve future performance. These rational, antidotal *shoulds* and *shouldn'ts* can then be used to fight off the irrational, destructive *shoulds*, *shouldn'ts*, and *musts*. LBT teaches that rational *shoulds* and *shouldn'ts* do not make absolutistic, unconditional demands. Instead, they avoid absolutistic language such as *must*, and *should always*. It teaches that rational *shoulds* and *shouldn'ts* tend to be *prima facie* in character, and that clients should exercise discretion in applying them. For example, that you should be honest with your spouse is rational, *ceteris paribus*. But if your spouse is a domestic abuser, and being honest can get you killed, then it may be quite irrational to be honest *in this context*. It thus adopts the Aristotelian notion that the context or situation should be taken into account in determining whether an antidote is viable. As in the case of medical antidotes, there may be situational contraindications.

As mentioned, syllogistic deductions often arise in *argument chains*. LBT recognises that irrational rules in a client's belief system can be corollaries of higher order, irrational rules. These deductive chains of fallacies are what I have called *fallacy syndromes*.¹²

⁹ The depression *includes* the premises of this reasoning as well as whatever cognitions that are deducible from them. As I suggest below, these cognitions are internal to the emotion itself. I am not, however, identifying the depression *exclusively* with prescriptive judgements or descriptive reports. Emotions also usually include behaviour, imagery, visceral feelings, and physiological changes. I would accept as a rough approximation, the definition of an emotion offered by Ellis and Harper as '(1) a certain kind of forceful thinking—a kind strongly slanted or biased by previous perceptions or experience; (2) intense bodily responses, such as feelings of pleasure or nausea; and (3) tendencies toward positive or negative action in regard to the events that seem to cause the strong thinking and its emotional concomitants.' *A New Guide to Rational Living* (North Hollywood, CA: Wilshire Book Company, 1975), pp. 23-24. See also the section on 'Emotion and Critical Thinking' in E. Cohen, 'Philosophical Counseling: Some Roles of Critical Thinking,' in R. Lahav and M. Tillmans, *Essays on Philosophical Counselling*, (New York: University Press of America, 1995), pp. 121-131; and see also, Chapter 2, *What Would Aristotle Do?*

¹⁰ See E. Cohen, *Caution: Faulty Thinking Can Be Harmful to Your Happiness*, 2nd Ed. (Fort Pierce, FL: Trace-WilCo, Inc., 1994).

¹¹ Fully articulated, the antidotal syllogism in question would say, 'Yes, I have screwed up, but screwing up does not imply that I myself am a screw up, so I shouldn't so regard myself.' This syllogism can then work to defeat the irrational syllogism by which I prescribe treating myself as a totally worthless screw up.

¹² See, for example, my discussion of the Slippery-Slope-Awfulizing-I-Can't-Stand-It-itis Syndrome in *Caution: Faulty Thinking Can Be Harmful to Your Happiness*; for further examples, see also *What Would Aristotle Do?*

For example, rules like rule₁ in the above example are often deductively spawned by the *demand for perfection* as in the following:

*Rule**: I must always be perfect

Bridging Rule: If I must always be perfect and I screw up, then I myself am a worthless screw up

Rule₁: If I screw up then I myself am a worthless screw up

Rule* here makes an unconditional, absolutistic demand for perfection, while the bridging rule links the failure to satisfy this absolutistic demand with self-worthlessness.¹³ Rule₁ accordingly provides a secondary tier of rule deduction that rests ultimately upon the said premises.

LBT helps clients to expose such hierarchical, rule deductions and it shows clients how this system of rules can direct self-destructive emotions and behaviour. For example, in the present case it shows clients how self-damnation can be a logical corollary of the demand for perfection, and how, by treating the latter, the former can be disarmed. Thus, an antidote that works on the demand for perfection can work on self-damnation where these two fallacies are linked hierarchically in a syndrome. For example, the following antidotal rule could be used to work indirectly on self-damnation by correcting the demand for perfection that is sustaining it:

If you make a mistake, then you should realise that human beings are not perfect and give yourself permission to be imperfect.

In the midst of the throws of strong emotions, such antidotes that go against the current of irrational emotional deductions may feel like unwelcome intruders. While in a state of depression, the client's intellectual awareness that making a mistake does not make the *person* a mistake, may not *feel* very persuasive. LBT recognises that *cognitive dissonance*¹⁴ can present a challenge for clients. At the same time, it emphasises that human beings have an internal power that can be harnessed to reverse such emotional currents and to make rationality *feel* right.

¹³ Bridging rules are conditionals that link two or more prescriptive rules.

¹⁴ This is a state of conflict between antidotal reasoning and irrational emotion (feelings, actions, and irrational premises). In such cases, you may 'know' that you are thinking, feeling, or acting irrationally, but you nevertheless continue to do so.

Here, LBT stresses human freedom to direct behavioural and emotional change. If such power were lacking, then people would be no different than automata. The power to act against the currents of self-defeating emotions and behaviour that are deduced from irrational premises is called *willpower*. This is an internal power of self-control human beings can experience when they push themselves internally to act against the current of emotional and behavioural inclinations. Unlike less neurologically complex creatures, human beings have an internal perception of their own bodily inclinations as well as a perception of power to resist these inclinations. Rational self-control means harnessing this perceived power in a rationally directed manner to overcome this perceived resistance. The last time you tried to stop reaching for the next Nacho chip, you will have experienced willpower.

Willpower, like a muscle, can be cultivated through exercise.¹⁵ LBT holds that overcoming cognitive dissonance is possible through the exercise and strengthening of one's native, internal willpower. Intellectual insight cannot itself meet this challenge without the exertion of such power.

LBT does not attempt to resolve the ancient metaphysical problem of free will by introducing willpower. It does not assume that this power is reducible to human physiology; nor does it assume that it is an irreducible power possessed by an immaterial soul. Instead, it defines genuine human freedom in terms of the human ability to exert willpower, without assuming any metaphysical theory about the nature of this internal power itself. Human freedom, in this sense, is real, regardless of willpower's metaphysical status. Thus, LBT does not tell clients what metaphysical theory to accept about the mind-body relation; however, regardless of what theory they accept, it refuses to accept the view that people cannot generally help how they feel or act. Human freedom is a postulate of LBT. It is assumed in the use of logic and rationality to control, direct, and overcome human emotion and behaviour.

¹⁵ A. Santas, 'Willpower', *International Journal of Applied Philosophy*, 4.2 (Fall 1988), 9-16.

Some Philosophical Differences Between LBT and REBT

I regard LBT as a development of REBT. In saying this, I do not view philosophical counselling as entirely distinct from psychological counselling. Psychological counselling can get philosophical, and conversely. The difference may be one of degree. Philosophical counselling tends to be more philosophical in its approach than psychological counselling. While I regard REBT as quite philosophical, let me briefly characterise the manner in which LBT tends to be *more* philosophical, and perhaps more philosophically enlightened.¹⁶

Traditional REBT speaks in terms of *event causation*. According to Ellis's ABC theory, 'Activating Events' (A) conjoined with 'Beliefs' (B) *cause* behavioural and emotional 'Consequences' (C).¹⁷ LBT syllogizes this 'ABC Theory' thereby producing a logical variant, which speaks in terms of prescriptive and descriptive *premises* and practical *conclusions* rather than events and consequences.¹⁸ Such logicising provides a consistent model of how clients *decide* of their own free will to act and feel certain ways. They do so by making inferences from premises. The causal theory in terms of events and (causal) consequences is inconsistent with the idea that clients' emotional and behavioural problems rest upon irrational inferences. Causal consequences of events are not properly called inferences or decisions. LBT takes REBT to its consistent conclusion by recasting Activating Events as descriptive premises (reports) that can engender

inductive fallacies; and it perceives REBT Beliefs as prescriptive major premises (rules), which, along with the descriptive minor premises, can logically entail practical conclusions (emotions and actions).

LBT treats cognitions that are deduced from premises (rules and reports filed under them) as internal aspects of an emotional experience. While REBT aspires to do the same, its theory that beliefs are causal antecedents of emotions appears to bifurcate belief from emotion. Yet clients who talk about their emotional experiences cannot easily manage to do so without focusing on their troublesome beliefs.¹⁹

I have previously held that the emotional conclusion (deduced cognitions) *cause* emotional consequences (emotions and actions). In an insightful article comparing LBT with REBT, Donald Robertson has keenly pointed out that this can leave the theory vulnerable to the charge that the emotional conclusion is simply the evaluative belief that Ellis and his disciples refer to as 'B cognitions'. Thus, in the end, there is still a causal relation between belief and emotion, and not a logical one.²⁰ I have seen the force of this objection and have subsequently abandoned the distinction between emotional consequences and emotional conclusions altogether. In its most recent formulation, LBT holds the more direct thesis that emotions and actions are deducible from premises. This view aligns itself more closely with the Aristotelian practical syllogism, which has as its conclusion not a statement but an action or emotion.²¹

The translation of REBT into terms of logic also makes possible definitions of rationality and irrationality in these terms. This is in contrast to Ellis' causal, means-end definition of rational thoughts as 'thoughts that help people live longer and happier.'²² Such a definition engenders a

¹⁶ Examples of philosophical methods include conceptual and logical analysis and the application of philosophical theories. Examples of the psychological include rational-emotive imagery, shame-attacking exercises, and other forms of behavioural conditioning. LBT also incorporate such psychological techniques. While it is beyond the scope of this paper to discuss the differences between philosophical and psychological techniques or methods, it is safe to say that philosophical ones are traditionally associated with training in philosophy while those of psychology are traditionally associated with training in psychology. REBT has significantly broadened the tradition of psychology by importing concepts and ideas from the tradition of philosophy. LBT represents a further step in this evolutionary progression.

¹⁷ A. Ellis and W. Dryden, *The Practice of Rational-Emotive Therapy* (New York: Springer, 1991), p. 9.

¹⁸ E. Cohen, 'Logic, Rationality and Counseling,' *International Journal of Applied Philosophy*, Vol. 5.1 (1990), pp. 43-5; E. Cohen, 'Syllogizing RET: Applying Formal Logic in Rational-Emotive Therapy', *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, Vol. 10.4 (1992), pp. 239-240.

¹⁹ I owe this point to D. Robertson, 'REBT, Philosophy, and Philosophical Counselling,' *Practical Philosophy* 3:3 (2000) Available on line: <http://www.practical-philosophy.org.uk/>.

²⁰ D. Robertson, 'REBT, Philosophy, and Philosophical Counselling,' p. 12 [on line version].

²¹ See my discussion of emotional conclusions in 'What Would Aristotle do?'

²² A. Ellis and M. Bernard, 'What is Rational-Emotive Therapy (RET)?' in A. Ellis and R. Grieger (eds) *Handbook of Rational-*

Naturalistic Fallacy insofar as not all rational thoughts necessarily promote longer and happier lives, even if they tend to do so. LBT recognises living longer and more happily as a probable outcome and justification for thinking rationally, but it defines rationality and irrationality according to standards of logical validity and soundness.²³

Further, by logicising REBT's ABCs, LBT clarifies the concept of a *system* or network of beliefs. According to LBT, the systematic relationship between beliefs is defined in terms of their logical relation. The traditional REBT model in terms of causes and events does not appear to have the conceptual machinery to account for belief systems.

This last point is of fundamental practical significance. Logicising REBT yields a framework in which suppressed premises of enthymematic arguments can be exposed, and the hierarchical deductive relationships between premises in belief systems explored. The analytic tools of REBT are accordingly honed by LBT for more precise analysis.

A further difference between REBT and LBT is in the latter's emphasis on defeating irrational syllogisms by way of constructing rational antidotal ones. This logical construction clarifies the problem of conflict between reason and emotion. While REBT traditionally emphasises the importance of avoiding irrational *shoulds* and *shouldn'ts*, LBT recognises and emphasises rational *shoulds* and *shouldn'ts* in the form of antidotal reasoning. REBT fails to show how one can achieve positive change by getting rid of the irrational *shoulds* and *shouldn'ts*. LBT's emphasis on counteracting irrational practical syllogisms with rational ones provides a foundation for achieving positive change. This Aristotelian notion gives meaning to the idea of overcoming an irrational thought with a rational one.

The tendency of traditional REBT has been to dismiss or downplay the significance of all *shoulds* and *shouldn'ts* (except for conditional, causal, means-end ones) as unrealistic, dogmatic,²⁴ or 'constructionistic'²⁵ due to their lack of empirical

verifiability. Unfortunately, this leaves REBT without a stable means of prescribing positive change. It eliminates the possibility of helpful, prescriptive rules that can redirect and fight off the self-destructive ones. LBT remedies this problem by distinguishing between good or realistic (prescriptive) *shoulds* and *shouldn'ts* and the bad or unrealistic ones. For example, that you shouldn't demand perfection is a realistic *shouldn't*, even though it is not empirically verifiable (insofar as it is not deducible entirely from descriptive, factual premises without commission of a Naturalistic Fallacy). In an effort to avoid 'musturbatory' constructs, REBT fails to recognise that its own principles of rationality imply such *shoulds* and *shouldn'ts*. LBT corrects this defect by also stressing antidotal *shoulds* and *shouldn'ts*.

Finally, LBT, as a philosophical approach, teaches clients informal logic. It teaches the avoidance of inductive fallacies such as hasty generalisation, unsupported explanation, and post hoc reasoning as well as proper modes of inductive inference. It also teaches the avoidance of relevance fallacies such as bandwagon argument and sweeping generalisation, and many other fallacies usually taught by philosophers. LBT does not merely point out clients' logical errors; it actually teaches clients how to identify and classify their faulty thinking errors. This includes giving clients reading assignments in informal logic.²⁶

(Amherst, NY: Prometheus Books, 2001), pp. 37-41.

²⁶ In my practice, I have used my book, *Caution: Faulty Thinking Can Be Harmful to Your Happiness*. I have also used flash cards, dubbed 'Fallacy Flashers,' which display the name of fundamental thinking errors on one side, and the definitions on the other. This is in addition to other philosophical forms of bibliotherapy. For example, I once assigned an edited portion of John Stuart Mill's *Subjection of Women* to two individuals in marriage counselling, who suffered from gender role issues, among other things. See case discussion in E. Cohen, 'The Philosopher as Counselor' in E. Cohen (ed.) *Philosophers at Work: Issues and Practice of Philosophy*, 2nd ed. (Wadsworth, 2000), pp. 457-466. I have also invented and made use of a computer program, *Belief-Scan*, that checks client's thinking for fallacies. See E. Cohen, 'Philosophical Counseling: A Computer Assisted, Logic-Based Approach,' *Inquiry: Critical Thinking Across the Disciplines*, Vol. 15.2 (1995) and <http://tracewilco.com/demo1.html>.

Emotive Therapy (New York: Springer, 1977), p. 7.

²³ E. Cohen, 'Logic, Rationality and Counselling,' pp. 45-46.

²⁴ A. Ellis and W. Dryden, *The Practice of Rational-Emotive Therapy*, pp. 14-17.

²⁵ A. Ellis, *Overcoming Destructive Beliefs, Feelings, and Behaviour*

A Case Study in LBT

To further illustrate the methods of LBT, consider the case of Jack, a twenty-five year-old golf instructor who sought my assistance to discuss a problem he was having with making a commitment. For the past two months, he had been dating Sharon, a twenty-two year old secretary. They would get together, mostly on weekends, dine out, have drinks, and usually they would end up having sex. Here is a dialogue between Jack (J) and myself (C):

J: 'I really like Sharon. We have a good time together but lately she's gotten too serious. I can't handle that. I don't know why we just can't leave things the way they are.'

C: 'What do you mean by 'serious'?'
 J: 'She wants me to promise her that I won't see anyone else.'
 C: 'How do you feel about this?'
 J: 'Very uncomfortable.'
 C: 'What do you think could happen?'
 J: 'Next, she's going to want to get married.'
 C: 'What would happen if you got married?'
 J: 'We'd end up getting divorced, eventually.'
 C: 'Why do you think you would get divorced?'
 J: 'That's what happened to my old man. He left my mother for a younger woman.'
 C: 'How do you feel about that?'
 J: 'Kind of guilty.'
 C: 'What do you mean?'
 J: 'I was not such a good kid. My old man had a lot to put up with.'
 C: 'What do you mean?'
 J: 'I got into a lot of trouble at school.'
 C: 'Like what?'
 J: 'You know, fights with other kids, skipping class.'
 C: 'So you blame yourself for your parent's divorce?'
 J: 'Yes, I guess so.'
 C: 'How does it feel to think you've caused your parents' divorce?'
 J: 'I feel guilty about it. I keep telling myself that, had I been better behaved they wouldn't have gotten divorced.'

Here is what Jack's reasoning looks like, when syllogized with suppressed premises explicated:

Rule_{1c}: If getting too serious ends in divorce, then I couldn't handle it.

Report_{1c}: If getting too serious results in marriage then it will end in divorce.

Conclusion_{1c}: If getting too serious results in marriage, then I couldn't handle it.

Report_{2c}: If Sharon gets too serious then it will result in marriage.

Conclusion_{2c}: If Sharon gets too serious then I couldn't handle it.

Report_{3c}: Sharon's gotten too serious.

Conclusion_{3c}: Anxiety about the consequences of a serious relationship with Sharon; including painful cognitions of not being able to handle this commitment.

As you can see, Jack's anxiety was *about* the prospects of having his relationship with Sharon progress from becoming serious, to marriage, to divorce. Reports _{1c-3c} articulate this intentional object. A complete articulation of the intentional object would also include whatever is implied by these reports, for example, that Jack will get divorced. Rule_{1c} along with its rule corollaries, Conclusions_{1c-2c}, constitute the prescriptive premises directing Jack not to 'handle' a serious relationship with Sharon. This hierarchy of rules ground Jack's low frustration tolerance for making a commitment.

Logically, there were two non-mutually-exclusive ways to address the described anxiety. One was to refute at least one of the rules in question. The other was to refute at least one of the reports.

It is not unreasonable to consider divorce an undesirable state of affairs. Indeed, the very question, 'What's so bad about divorce?' has a self-answering ring. Divorce is a kind of failure, that of a failed marriage. This can reasonably be regrettable for many who go through such an experience. Nevertheless, to fear commitment because there is risk of divorce typically goes beyond the pale of rationality.

When I asked Jack why he was so disturbed about the possibility of a divorce (Rule_{1c} above), his answer was that he would end up 'a failure like his old man,' which fate he considered to be the worst of all fates. 'It would be *horrible*,' he said. This uncovered yet a higher level of rules that sustained Jack's anxiety:

Rule_{1a'}: If getting too serious makes me into a failure like my old man then it will do something horrible to me.

Bridging Rule_{1b'}: If getting too serious will do something horrible to me then I couldn't handle it.

Conclusion 1^r: If getting too serious makes me into a failure like my old man then I couldn't handle it.

Report 2^r: If I getting too serious ends in divorce then it will make me into a failure like my old man.

Conclusion 2^r: If getting too serious ends in divorce then I couldn't handle it.

There is a tragic air of self-evidence about Rules^{1^a-1^b*}. Indeed, if something so *horrible* as ending up a *failure* like your father happened to you, then who could blame you for being disturbed? If the earth exploded, who would blame you for falling to pieces (literally)? What is irrational, however, are the assumptions that (1) his father *was* a failure, and (2) he'll be such a failure too if he gets a divorce. The first assumption damns the doer rather than the deed. If Jack was to come to terms with his feelings about his father, then he had to address what his father *did* instead of providing a vague global damnation of him.

In the end, it was Jack's assumption that his father had abandoned him when his mother and father divorced that grounded this global damnation and which helped to fuel anger and resentment toward his father. When Jack reflected on other aspects of his father, such as the fact that he was also a successful businessman, the unrealistic character of such a global assessment as 'a failure' became clear to him.

The bogus character of the second assumption - that Jack too would be a failure like his father if he got a divorce - was manifest once he realised that getting a divorce did not equate with being a failure and that, indeed, this did not make his father a failure either.

The 'horrific' character of divorce was thus deflated and exposed for what it was - a sham. Divorce can be unfortunate, regrettable, and even a major disappointment, but it is not, in itself, a candidate for the horrible. For example, it is not on a par with being decapitated on a guillotine or being fried to death in oil.

Nor, in the first place, did Jack have sufficient documentation for the report that he had filed under these unrealistic rules, to wit, that if he got married, he'd get divorced (Report^{1^c} above). Since this report made a prediction requiring empirical evidence, it was reasonable to ask for this evidence.

Clearly, the evidence Jack adduced - namely that his parents got divorced - was not adequate

documentation. The problem here was that it was a predictive induction based upon an inadequate sampling. Just because his parents got divorced did not mean that he was destined to do the same. This was a *slippery slope* he did not have to go down. The more I discussed this with Jack, the more it became clear that he was also engaging in *fatalistic* thinking:

'Because my parents got divorced, this *must* also happen to me and there's nothing I can do about it to stop it.'

As Hume showed, this absolutistic form of thinking confuses empirical truth, which is probabilistic and *a posteriori*, with logical truth, which is necessary and *a priori*. Antidotally, Jack needed empirical evidence to rationally predict the probability of his own divorce. In fact, we discussed how people often fulfil their own prophesy by failing to realise the considerable control they can exert over future outcomes by changing the empirical realities under which they live.

We talked about the purported fact that children from divorced households have increased risk of getting divorced. Paradoxically, this increased risk may have much to do with the tendency of such individuals to engage in irrational thinking about themselves and about their own prospects of divorce. Thus, if Jack stopped telling himself that he *must* get divorced, then he could eliminate at least one risk factor.

However, in the course of looking at the empirical bases for Jack's prediction, it became evident that, behind his anxiety was another virulent strain of irrational thinking:

Rule^{1^a}: If I'm responsible for destroying my parents' marriage then I'm a bad person.

Report^{1^a}: Had I been better behaved, my parents wouldn't have gotten a divorce.

Conclusion^{1^a}: Guilt about having caused the divorce; including damning thoughts of self-worthlessness.

On the one hand, Jack had damned his father for abandoning him and had vowed not to be a failure like him. On the other, Jack had also gone for his own jugular, branding himself as a home-wrecker and (consequently) a bad person. If he had caused his parent's divorce, would he then not cause his own? The more I talked with Jack about the matter, the more apparent it became that he was drawing inferences from the irrational counterfactual expressed in his Report^{1^a}.

Further, the strong guilt Jack deduced from this irrational premise supported a system of irrational thinking that helped keep him in a state of anxiety and self-doubt about his own ability to sustain a successful relationship:

Rule_{1c}: If I'm a bad person, then I must destroy my own marriage too.

Report_{1c}: I am a bad person.²⁷

Conclusion_{1c}: I destroy my own marriage.

I suggested that Jack look carefully at all the assumptions behind his counterfactual reasoning (as expressed in Report_{1d}), which could itself be arranged as an enthymeme with an assumed premise:

Assumption: I am better behaved

Conclusion: My parents do not get divorced

In this reasoning, the antecedent of the counterfactual is an assumed premise from which the consequent is deduced. But, quite clearly, the validity of this argument depended upon a number of *further* assumptions, including:

- 1) My father does not continue to have extramarital affairs (of which he had several).
- 2) My father and mother do not continue to have an abusive, turbulent relationship - in which they verbally and physically attack each another.
- 3) My father and mother successfully work through their individual differences.
- 4) My mother and father still love each other.

As we discussed each of these assumptions, it became apparent that there was no justification for accepting all of them, and, therefore, that it was irrational to continue to accept a line of reasoning based on them. I also emphasised the unrealistic nature of Jack's global *self*-condemnation. Thus, his misbehaviour as a young child did not make him a *bad person*.

While Jack came to appreciate the irrationality of this line of reasoning at least on an intellectual level, he was still emotionally disposed towards avoiding a committed relationship. Nevertheless, the intellectual realisation gave him a reason for trying to overcome his cognitive dissonance. In the end, Jack came to the

conclusion that he liked Sharon enough to make a commitment *to date* her steadily.

Implementing this decision ran against the grain of his emotions - of anxiety and guilt - which were largely deduced from the aforementioned syllogistic sets of irrational premises. But, as I explained to Jack, by exerting his willpower in favour of a rational argument to give the relationship with Sharon a fair chance, he could defeat these irrational, emotional currents that inclined him in an opposing direction. The last I spoke to Jack, he was still dating Sharon.

Conclusion

LBT provides a dynamic set of logic tools by which philosophical counsellors can help clients avoid destructive emotions and behaviour. First, the theory proceeds by helping the client to identify the self-defeating behaviour and/or emotion in question. Second, it helps the client expose the network of reports and rules that syllogistically and enthymematically undergird these self-defeating practical conclusions. Third, it undertakes a refutation of the irrational premises - rules and/or reports - that have been articulated. Fourth, it helps the client to construct antidotal reasoning that opposes the irrational tendencies supported by the client's irrational syllogisms. Fifth, it emphasises the cultivation and exercise of willpower on behalf of rational, antidotal reasoning in order to defeat the irrational tendencies.

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²⁷ Deduced from Report/Rule set_{1a}.