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Tantalus, Restraint Theory, and the Low-Sacrifice Diet: The Art of Reverse Abstraction

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Abstract

This paper argues that clinicians face the unique artistic challenge of taking concrete pieces of data -- scientific findings -- and abstracting them into effective therapeutic interventions. Moreover, this abstraction has to be modified for different personality types. The process of therapeutic change and how it can be impeded by the traditional medical model are briefly explored. The doctor-patient dyadic treatment relationship, while appropriate and necessary for many medical interventions, can disavow the source of change when it comes to lifestyle conditions such as obesity. Restraint theory and its origins in Greek mythology are briefly reviewed and integrated with Bowlby's attachment theory as precepts in developing a psychologically based dietary approach. By retaining in people's diets foods they have a deep emotional attachment to, the low-sacrifice diet attempts to encourage caloric restriction in a way that does not trigger rebound overeating.

Key words: weight loss, treatment, restraint theory, psychotherapy.

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Introduction - Art as the Delivery of the Science

Rarely do research findings come with a therapy manual that elaborates how to apply them clinically. And almost never is it explained how to vary the delivery of these research findings in a way that is best suited to individual patients and their personalities. Those of us at the front line typically deal with a patient who has comorbid conditions and is typically excluded from clinical trials. In treating this complex population, the 2 aspects of research translation and individualized therapeutic implementation are, for this psychotherapist, the essence of the art of managing obesity.

The process of translating and implementing research is a complicated challenge fraught with risk. As the scientific findings are abstracted into clinical intervention, it is possible that, as with even minor mistakes in translating languages, the meaning can be lost or, at worst, reversed. In art it is more usual to start with a poorly formed idea with its attendant emotions and then make it more concrete in the favored modality of the artist, writer, or composer. Through the ministrations of the artist, the abstract is slowly given discrete form as it comes to finally rest on a canvas, on a page of a book, or in the lyrics or melody of the recorded song.

In direct contrast, clinicians working to bring about long-term behavior change start with a discrete, concrete scientific finding and work in the reverse direction as they abstract it. Often this abstraction has to be reworked in multiple directions for different patients -- we might call this uncommon art of the clinician's work the art of reverse abstraction. The goal of the art of reverse abstraction is to develop approaches that are both meaningful and motivating to our patients.

In this paper I will briefly review research that suggests that our poor outcomes in treating obesity^[1,2] are in large part the result of a failure to give the issues of research translation and therapeutic implementation a level of attention that vaguely approximates the amount of resources put into the underlying research. The evidence of this failure is poor long-term compliance with weight-loss programs. This failure has resulted in the construction of weight-loss plans and diets such that abandoning them, or avoiding them altogether, is an eminently viable option for most people. In succinctly capturing this issue, the comedian Jackie Gleason observed that "The second day of a diet is easier than the first because by the second day you are off it!"

We have been inundated with scientific evidence that obesity presents a serious health problem to the individual, to society, and to our health service providers. We are better at treating many cancers than we are at treating obesity by nonsurgical means. Even more concerning is research suggesting that weight regain in the 5 years following weight loss is, on average, 115% of the weight initially lost.^[3]

This statistic and the concept of weight cycling that it refers to raises a crucial issue for the international health profession: Do we inadvertently promote weight gain and contribute to the obesity problem by encouraging people to lose weight without dealing with the psychological complexities of weight loss?

Restraint Theory Meets Attachment Theory

While the Minnesota experiment of the 1940s^[4] is often cited as the origin of restraint theory (RT), there is evidence that the ancient Greeks captured the essence of RT in their mythological figure, Tantalus.

Tantalus enjoyed the favor of the gods, Zeus in particular, but failed to respect his new friends despite being allowed to dine with them on a regular basis. After stealing their secrets, their nectar, and their ambrosia to share with his mere human associates, he pushed the friendship one step too far. His greatest crime, purportedly to test whether the gods were all-knowing, was to serve up his own son, Pelops, for dinner. Knowing the gods were not to eat human flesh, Tantalus was testing to see whether they would realize the origin of the meat as being of man.

Unfortunately for Tantalus it turned out that the gods, being gods, were in fact all-knowing. On recognizing his impertinence they punished him (more for the attempt at deceit than for the murder of his son) by banishing him to one of the more onerous precincts of Hades, known as Tartarus, for all eternity. Here, Tantalus' feet were fixed in a pond of sparkling drinking water, but when he bent down to quench his thirst the water drained away. Above his head hung delectable foods that were just out of reach so that he could do nothing but gaze on them through his hunger.

In short Tantalus was eternally tormented by having the objects of his hunger and thirst paraded before him but just out of reach -- an experience attested to by many required to endure the fullness of a diet. Although the common English word *tantalize* evolved to have generally positive connotations around the excitement of potential delights, the story of its origin reminds us that to be tantalized but forever unable to partake is considered one of the more dastardly of Hades' punishments. Tantalus remains in Hades to remind us why people would rather risk early death than undertake the much less palatable rigors of the modern diet.

What if restricting foods has greater risks than making diets unpalatable or causing people to abandon them? What if restricting foods to which people have an emotional attachment explains the 115% figure above? What if restricting foods actually contributes to the obesity problem? Why is it that the Canadian National Eating Disorder Information Centre^[5] (mandated and funded by the Ontario Ministry for Health) formally eschews advising dietary restraint on the basis that it is physiologically and psychologically harmful? In light of the increasing incidence of this emerging problem, RT was developed beginning in the mid-1970s to provide a framework for the scientific exploration of overeating after a period of dietary restriction. It has become the most useful framework for understanding weight cycling, the most concerning challenge that confronts clinicians working in this field; that is, repeated failed attempts at weight loss with subsequent overeating and weight regain. In essence, RT explores the "general consensus in the literature that dieting contributes to binge eating."^[6]

I was awakened to this field some years ago by Joan Ogden's book *The Psychology of Eating*, wherein she observed, "The recognition of overeating in dieters and the development of restraint theory paved the way for a

wealth of research examining when and why dieters sometimes overeat, and the role of restraint in this behavior."^[2]

Ogden argues that RT has its limitations, such as with patients who have anorexia nervosa and for the minority of people who can restrict and not overeat. Proponents of RT recognize that a proportion of people exert the requisite self-control in the face of attractive food, with this self-control ranging from fragile to robust (CP Herman, personal communication, 5 September 2006).

A closely related phenomenon is the false hope syndrome as defined by two of the primary protagonists of RT.^[7] Herman and Polivy reviewed research that showed, for example, that patients in the study sample had an average goal of losing 32% of their body weight. With a considerable loss of 16 kg as their goal, 47% of the group saw this as worse than disappointing. In elucidating the psychological mechanisms of weight regain, all-or-nothing or dichotomous thinking has been demonstrated to be one of the more robust predictors of weight regain and helps us understand why people will abandon a weight-loss program and regain weight despite having achieved medically significant weight loss.^[8]

Attachment theory was explicated by John Bowlby in the 1950s to highlight the critical importance of emotional sustenance in the development of the child. In giving emotional attachment to mothers a level of importance equal to an infant's absolute need for food, Bowlby also highlighted the powerful emotional meaning of food to the developing child. In recognizing the closely interwoven relationship between feeding the stomach and feeding the soul, he wrote of "...the intimacies of suckling by which a child learns the comfort of his mother's body..."^[9] More than half a century ago he was writing of the fullness of the deep emotional origins of what is commonly called *comfort eating* today.

Bowlby reminds us that recognition of the powerful attachment that people have to foods, especially foods that have particular emotional significance to people who experienced emotional privation in their formative years, must be incorporated into any approach to weight loss. To threaten this attachment is to take on very powerful forces indeed.

Artfully Addressing the Change Process

From the perspective of a medical doctor and a group and individual psychotherapist, I see that the essential challenge, and very much the art, of our work is in taking the dictates of science and, through the abstraction process described above, working with our clientele to close the gap between their position at presentation and the desired outcome as defined by research. For example the National Weight Control Registry,^[10] a voluntary registry of adults who have maintained weight losses of at least 30 pounds for at least 1 year, informs us that the average amount of daily exercise of their registrants is 1 hour per day of moderately intense physical activity.

How we as clinicians deal with this finding is the challenge. Clearly, sharing this information with our patients without artfully translating it is not likely to be effective, and if presented as a therapeutic goal is likely to be experienced as downright scary! For this reason use of the therapeutic paintbrush to paint a picture for our patients of the goals of therapy may mean not sharing this information with certain clientele at all. Instead we might develop an incremental approach as we shape their behavior toward a goal of first increasing daily incidental activity.

Equally, no therapeutic art is required to tell a patient that he or she needs to lose weight to avoid an early demise resulting from one or other of the complications of obesity. If we can assume that in the course of managing weight loss it is usual for patients to be made aware of the health risks of obesity, then the extant success rates in treating obesity remind us that the simple threat of a premature death, in the absence of a medical event, is not sufficient motivation for most people to change their energy intake-energy output-related behavior.

The essence of managing people who are obese -- the very core of all interventions for this condition -- is effecting change at both the intrapsychic and the behavioral level. This is the key issue that preoccupies psychotherapists of all persuasions.

Perhaps one of the first impediments to bringing about fundamental long-term change, as is required in the management of obesity, is the traditional medical model. For a malady that can be treated effectively by either surgery or medication alone, the role of the patient is a relatively passive one. An intimate understanding of the cause of the condition and exactly how treatment works is not necessary to effect successful treatment. Despite a growing awareness of the need for clinician and patient to work as a team, much medical care is still delivered on this traditional basis. This sets up an expectation among patients that they can change while adopting a relatively passive role.

Allen Wheelis,^[11] psychotherapist and author of *How People Change*, reminds us that "For the job can be done, if at all, only by the patient. To assign this task to anyone else, however insightful or charismatic, is to disavow the source of change. In the process of personality change the role of the [clinician] is catalytic. As a cause he (sic) is sometimes necessary, never sufficient."

As with other lifestyle ailments such as those caused by tobacco, alcohol, and other addictive substances, one of the first maneuvers for the clinician working with obese people is to shift the patient's role in the process 180 degrees from the traditional medical model.

The other key aspect of the process of change is recognizing the limitation of self-regulation or self-discipline in the weight-loss challenge. Lowe,^[12] in a comprehensive discussion, highlighted the relative ineffectiveness of training in self-regulation for the management of obesity and therefore argued for greater environmental regulation in our "food-replete environments."

The Low-Sacrifice Diet

The National Health and Medical Research Council of Australia^[13] has adopted some of the core principles of RT in their guidelines to practitioners. The Council recognizes the need for any dietary approach to be ad libitum to avoid creating chronic hunger with its attendant risks. The Council also suggests that expectations of weight loss be adjusted to a more realistic amount of around 8% of body weight per year. These guidelines provide the framework for clinical intervention.

In developing the psychophysiological component of the weight-loss program at RiverCity Private Hospital in Brisbane, Australia, this author was left with the question: How do we integrate the lessons from RT, attachment theory, and the processes of change into more specific aspects of intervention? These influences, by no means all of them, were representative of some of the key issues that the new program needed to reflect.

In its simplest terms, the low-sacrifice diet, while not a diet in the traditional sense (as it does not prescribe any particular dietary regimen or specify any caloric limits) was developed as a construct to introduce these psychological imperatives. The focus is on long-term weight loss and maintenance rather than on achieving short-term weight loss. Although people do lose weight using these strategies alone, this approach is primarily designed to complement and modify medically proven weight-loss programs. People requiring more rapid weight loss, such as those with pending surgery or serious medical complications, are referred to credible weight-loss plans. Low-sacrifice diet strategies are primarily targeted at achieving a healthy, sustainable eating lifestyle with slow and gradual long-term weight loss and at avoiding weight rebound.

In essence patients spend time identifying, of the more fattening foods they typically eat, those that would be considered a high sacrifice for them to relinquish on a long-term basis. High-sacrifice foods number less than half a dozen for most individuals. Low-sacrifice fattening foods are then removed from the diet without risk of triggering rebound overeating as dictated by RT. High-sacrifice foods are retained in the diet but are eaten in smaller amounts through portion control maneuvers such as mindfulness and savoring techniques. People are encouraged to eat their high-sacrifice foods in the earlier part of the day in line with research showing that obese people are more likely to eat later in the day after depriving themselves earlier in the day.^[14]

The retention of high-sacrifice foods in the new eating lifestyle decreases the need for self-regulation skills -- indeed the need for excessive self-discipline is seen as a sign of greater potential for self-sabotage and rebound overeating. A range of complementary strategies are also employed and introduced in the form of a handbook written for this population.^[15]

The next step will be to evaluate this treatment approach to see whether it accurately incorporates the science it attempts to reflect in improving treatment outcomes. It is hoped that a long-term study to address this will be completed in coming years.

Conclusion

In looking to the future, we need to wonder whether much has changed over the 2400 years since Hippocrates lamented the state of the art of medicine. With the obesity epidemic upon us, it is imperative that resources be equitably allocated between the research into and the development of clinical methods to ensure that the maximum benefit is extracted from the science and can be translated into more effective interventions at the clinical level.

References

1. Swinburn BA, Metcalf PA, Ley SJ. Long-term (5-year) effects of a reduced-fat diet intervention in individuals with glucose intolerance. *Diabetes Care*. 2001;24:4.
2. Ogden J. *The Psychology of Eating*. Oxford, UK: Blackwell Publishing; 2003:116.
3. Saris WHM. Very-low-calorie diets and sustained weight loss. *Obes Res*. 2001;9:295S-301S. [Abstract](#)
4. Franklin JC, Burtrum CS, Brozek J, Keys A. Observations on human behavior in experimental semistarvation and rehabilitation. *J Clin Psychol*. 1948;4:28-45.
5. National Eating Disorder Information Centre, Toronto. Available at: <http://www.nedic.ca/about/philosophy.shtml>. Accessed August 28, 2006.
6. Urbszat D, Herman CP, Polivy J. Eat, drink, and be merry, for tomorrow we diet: effects of anticipated deprivation on food intake in restrained and unrestrained eaters. *J Abnorm Psychol*. 2002;2:396-401.
7. Polivy JA, Herman CP. If at first you don't succeed: false hopes of self-change. *Am Psychol*. 2002;57:677-689. [Abstract](#)
8. Byrne SM, Cooper Z, Fairburn CG. Psychological predictors of weight regain in obesity. *Behav Res Ther*. 2004;42:1341-1356. [Abstract](#)
9. Bowlby J. *Child Care & the Growth of Love*. London, UK: Penguin; 1953:16.
10. Wyatt HR, Phelan S, Wing RR, Hill JO. Lessons from patients who have successfully maintained weight loss. *Obes Manage*. 2005;1:56-61.
11. Wheelis A. *How People Change*. New York, NY: Harper & Row; 1973:7.
12. Lowe MR. Self-regulation of energy intake in the prevention and treatment of obesity: is it feasible? *Obes Res*. 2003;11:44S-59S.
13. National Health and Medical Research Council. *Overweight and Obesity in Adults: A Guide for General Practitioners*. Canberra, Australia: Commonwealth of Australia; 2003.
14. Forslund HB, Lindroos AK, Sjostrom L, Lissner L. Meal patterns and obesity in Swedish women -- a simple instrument describing usual meal types, frequency, and temporal distribution. *Eur J Clin Nutr*. 2002;56:740-747. [Abstract](#)
15. Blair-West GW. *Weight Loss for Food Lovers: Understanding the Psychology and Sabotage of Weight Loss*. Brisbane, Australia: Alclare; 2006.

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