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## **Indigenous nutrition research and the low-carbohydrate diet movement: Explaining obesity and diabetes in *Protein Power***

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Low-carbohydrate diets were particularly popular in English-speaking Western countries in the late 1990s and early 2000s. Based on a critical analysis of the bestselling low-carbohydrate diet book *Protein Power* (New York: Bantam, 1996), this paper examines and critiques the use of anthropological and nutritional research about Indigenous people in the low-carbohydrate diet movement. I argue that *Protein Power* turns the popular scientific gaze onto Indigenous groups as a purported explanatory microcosm for the West, in which the negative effects of 'civilized' diet and lifestyle appear magnified and accelerated. However, the reduction of Indigenous foodways to the binary formation 'urbanized Western diet' versus 'traditional Indigenous diet' cannot account for the cultural and historical context in which food practices take place, nor for the social and environmental factors implicated in the development of diabetes and obesity. Rather, this binary reflects an investment in the ideology of 'nutritional primitivism': pursuit of a more natural and authentic, and therefore ostensibly healthier, diet.

Keywords: diet; obesity; diabetes; Inuit; Aboriginal Australians

Low-carbohydrate diets were particularly popular in English-speaking Western countries, including the United States, Australia and Britain, in the late 1990s and early 2000s. Recommending the reduction or elimination of starches and sugars, and a focus on non-starchy vegetables, meat and fish, they include the notorious Atkins Diet, as well as the South Beach Diet, the Zone and Sugar Busters (Atkins 2002; Agatston 2003; Sears 1995; Steward et al. 1998). Low-carbohydrate diet books commonly deploy anthropological and nutritional research about Indigenous people, in support of their recommendations. The reasons for this include the fact that many traditional Indigenous diets are low in carbohydrate; the lack (until recently) of other scientific research on the

safety and efficacy of low-carbohydrate diets; and a more general ideological investment in what I have elsewhere termed 'nutritional primitivism' – the pursuit of supposedly simpler, more natural and more authentic ways of eating as part of a quest for health (Knight 2005, 2006, 2008).

Critical scholarly literature on low-carbohydrate dieting is limited, whether in cultural studies or the broader humanities and social sciences.<sup>1</sup> However, Mouton touches briefly on the use of research with Indigenous people in the low-carbohydrate diet literature, noting that recent low-carbohydrate diet books 'make nutritional claims based on cross-cultural comparisons or nutritional anthropology' (para. 20). My own work elsewhere explores related primitivist tendencies in low-carbohydrate discourse, including evolutionary models of obesity and diabetes (Knight forthcoming), and generalised ideals of authenticity and tradition (Knight 2006). The present paper critically analyses how anthropological and nutritional research with Indigenous peoples is deployed in one low-carbohydrate bestseller, *Protein Power* (Eades and Eades 1996). Although nearly all popular low-carbohydrate diet books rely on primitivist arguments, *Protein Power* is the bestseller most directly engaged with the diets of Indigenous people – hence my focus in this paper.

*Protein Power* is also significant because of its popularity and ongoing influence. The book spent 118 weeks on the USA Today bestseller charts, reaching a highest overall ranking of 9.<sup>2</sup> Its authors – Arkansas doctors Michael and Mary Dan Eades – are passionate and successful advocates for low-carbohydrate diets, with 14 books as well as a low-carbohydrate television cooking show. They maintain an active website including individual blogs and a discussion forum.<sup>3</sup> Eades and Eades are closely connected with other high-profile low-carbohydrate diet advocates in both the popular and scholarly communities, including Barry Sears, author of *The Zone* (Eades and Eades 1996, xi-xii), and 'Paleo Diet' expert Professor Loren Cordain (2001), with whom they co-authored a scientific paper (Cordain, Eades and Eades 2003). Although the most recent cycle of 'low carb' popularity

peaked in 2004, low-carbohydrate dieting has by no means disappeared. The popular trend has had a lasting influence on clinical nutrition research, prompting long-term scientific investigations into the effectiveness and safety of low-carbohydrate diets (see Knight forthcoming). In this context it remains vital to deconstruct the most troubling aspects of popular low-carbohydrate discourse, especially given the high degree of dialogue and mutual influence between popular low-carbohydrate advocates and scientific researchers.

*Protein Power* presents two distinct but related images of Indigenous people. Drawing on anthropological research carried out in the early twentieth century, Eades and Eades represent the North American Inuit and their food habits as culturally pristine and exceptionally healthy, recalling the stereotype of the Noble Savage. Drawing on nutrition research carried out in the early 1980s, they portray Aboriginal Australians as abject and diseased because of their 'exposure' to Western diet and lifestyle. *Protein Power* thus turns the popular scientific gaze onto Indigenous groups as an explanatory microcosm for the West, in which the deleterious effects of 'civilized' diet and lifestyle appear magnified and accelerated.

#### **North American Inuit<sup>4</sup>**

Drawing on anthropological work carried out by explorer Vilhjalmur Stefánsson in the early twentieth century (Stefánsson 1956), Eades and Eades begin by vaunting the nutritional habits, longevity and apparently excellent health of the North American Inuit:

Eskimos eat very little carbohydrate, in fact no carbohydrate during the winter, and survive nicely to a ripe old age. Although their traditional diet is composed of a large quantity of protein and an enormous amount of fat, Eskimos suffer very little heart disease, diabetes, obesity (despite the cartoons), high blood pressure, and all the other diseases we associate with a more civilized lifestyle. Furthermore, Eskimos don't have metabolic systems from an alien planet; they have the exact same biochemistry and physiology that we do. Yes, *you* could eat the same diet and tolerate it nicely. (9, original italics)

The outdated vocabulary is potentially distracting.<sup>5</sup> More importantly however, the implicit suggestion that 'we' are 'more civilized' than the Inuit constructs a racist hierarchy and excludes the Inuit from *Protein Power's* readership, even though the United States (the authors' home country and the country of *Protein Power's* original publication) comprises a significant Inuit population. The text reflects an assumption that 'Eskimos' are somewhere 'out there' in the wilderness, cut off from 'civilization' and English-language diet books. The stress on the biochemical and physiological similarity between 'Eskimos' and 'us' protests too much, paradoxically strengthening the sense of exoticism.

Essentially, *Protein Power* overlooks the near-100 years that have elapsed since Stefánsson undertook his research.<sup>6</sup> The passage is in the present tense, the grammatical trope that Fabian (1983) dubs the 'ethnographic present' and which "'freezes" a society at the time of observation' (81). The portrayal *is* partially correct: diabetes is less common amongst the Inuit than in the United States as a whole, in contrast to escalating rates amongst many other Indigenous groups worldwide (Bjerregaard et al. 2004, 392). Deaths from cardiovascular disease, however, are more common amongst the Inuit than North Americans or Europeans generally. Moreover, a recent review of overweight and obesity prevalence amongst Inuit in Canada, Greenland and Alaska found rates comparable to North America and Western Europe, although the authors noted that 'universal criteria for obesity may not reflect the same degree of metabolic risk for populations such as the Inuit', and that higher, 'ethnic-specific' cut-off points may be needed (Young et al. 2007, 691). Nonetheless, the idea that the Inuit 'survive nicely to a ripe old age' is simply not true. In Canada, Inuit life expectancy in the 1990s was approximately ten years less than the national average, and infant mortality was three times the rate nationwide (Bjerregaard and Young 1998, 64). The picture *Protein Power* presents obscures gross health inequalities between today's Inuit people and the non-

Inuit population of the countries in which they live, including high rates of infectious diseases and tragically high rates of interpersonal violence and youth suicide (Bjerregaard et al. 2004, 392-3).

When reading *Protein Power* it comes to seem natural that 'Eskimos' should appear in any explanation relating to diet or health, a discursive peculiarity indicating the extraordinary influence of Stefánsson's work on the contemporary low-carbohydrate diet movement (Brenton 2003, 2004a). Eades and Eades reassure readers with cross-cultural precedent: 'traditional Eskimos, living above the Arctic Circle, eat virtually no carbohydrate and do fine' (148). The Arctic (home of the Eskimo) appears equally abruptly to explain human metabolic adaptation to harsh environmental conditions: 'When you diet – or *if you were somehow stranded in the Arctic or suffered a famine* – your metabolic computer rapidly decreases your metabolic rate to conserve stored energy' (139, italics added). Given extensive references elsewhere in *Protein Power* to Paleolithic hunter-gatherers subject to feast-or-famine conditions (see Knight forthcoming), the effect of this statement is to identify the contemporary inhabitants of the Arctic with Paleolithic people. The consistent discursive slippage between Stone-Agers and contemporary Indigenous groups posits today's Aboriginal peoples as 'remnants' of prehistoric hunter-gatherer groups, facilitated by an outdated and racist model of evolutionary development. The identification of contemporary Indigenous people with our prehistoric forebears 'depends on denying primitive societies "pasts" of their own', and perpetuates 'stubborn derogatory tropes' for Indigenous people as 'childlike' and brutish (Torgovnick 1990, 186-7).

### **Aboriginal Australians**

Similar tropes to those discussed above in relation to the Inuit appear repeatedly in an extended passage from *Protein Power* describing diabetes research amongst a group of Aboriginal

Australians. The research in question was carried out in the early 1980s, led by well-known Australian nutrition researcher Kerin O'Dea, with Indigenous people from the Kimberley region of Western Australia – specifically, from the Mowanjumb Community near Derby (O'Dea, Spargo and Akerman 1980; O'Dea and Spargo 1982; O'Dea, Spargo and Nestel 1982; O'Dea et al. 1988; O'Dea 1984, 1991a, 1991b).<sup>7</sup> In the introduction to the discussion, entitled 'Better in the Bush', Aboriginal people are introduced as a research tool to help explain what causes diabetes in the general (non-Indigenous) population:

The aborigines are an interesting group in that they develop a high incidence of hyperinsulinemia and type II diabetes when exposed to an urbanized Western diet. Like a huge number of Americans, they are genetically predisposed to the development of these disorders, but they develop them much more quickly. This situation, although unfortunate for the aborigines, makes them ideal candidates for the study of the relationship between diet and hyperinsulinemia. (46)

Again, the outdated language may be distracting; the authors seem to be echoing the early-1980s vocabulary of O'Dea's papers. But far more troublingly, this passage constructs the 'aborigines' as the 'ideal' and obvious guinea pigs for the study of insulin-related disorders and nutrition: Indigenous Australians are an 'interesting group' because of their bodies' potential to shed light on the causes of hyperinsulinemia and diabetes in the general population.

I stress that this is *Protein Power's* gloss: O'Dea's original research publications demonstrate far more concern with Aboriginal health *per se* than the exploitation of Indigenous bodies for general medical research. By contrast, *Protein Power* implies that research carried out on these 'unfortunate aborigines' will have only incidental benefits, if any, for Aboriginal people. Although Eades and Eades themselves are not carrying out the studies, this is still a troubling approach to research with Indigenous people. I certainly do not suggest that the study *Protein Power* goes on to describe was detrimental to the people involved. Nonetheless, *Protein Power's* construction of Indigenous people as 'ideal' research guinea pigs because of their disproportionate susceptibility to diabetes transforms Indigenous suffering and death into fertile ground for the production of Western scientific knowledge. Diabetes writ large upon the collective Aboriginal

Australian body becomes a cautionary tale for the West as a whole, from which 'we' may learn in order to save ourselves.

Australian Aboriginals and Torres Strait Islanders certainly experience disproportionate rates of hyperinsulinemia and type 2 diabetes. In 2004-05, the most recent data available, the age-standardized rate of diabetes for Indigenous Australians was 12.3 percent, 3.4 times the rate amongst non-Indigenous Australians (SCRGSP 2007, 3.13-14). However, the implication that this is caused by an 'urbanized Western diet' is misleading. This phrase covers an almost infinite array of foods in varying combinations and proportions. The suggestion that there is a single 'urbanized Western diet' obscures extreme disparities in nutritional value between *different* urban Western diets (though how we judge nutritional value is precisely what is at issue in *Protein Power*). Even if it were possible to define the 'urbanized Western diet', the suggestion that diet in itself causes diabetes (in Aboriginal Australians or others) is misleading. Type 2 diabetes is multifactorial, and has strong associations with socioeconomic status, obesity and low levels of physical activity as well as poor nutrition.<sup>8</sup> Further, despite what Eades and Eades imply, diabetes is *more* common amongst Aboriginal Australians living in remote areas than elsewhere (SCRGSP 2007, 17).

The reduction of Aboriginal diet and lifestyle to binaries such as urban / 'the bush', urban / hunter-gatherer, and Western / traditional reinforces stereotype and fails to engage with the complicated and heterogeneous reality of Aboriginal life. The terms *urban* and *urbanized* obscure significant differences in health and nutrition between Aboriginal people living in Australian cities, regional centres, and remote communities (all of which are deemed 'urban' in this context). The remoteness of the Kimberley region, with its attendant problems of access to fresh food and a full range of medical and social services, disappear in *Protein Power's* description of Aboriginal diet as 'urbanized'. The text goes on to identify the staples eaten by the participants in O'Dea's study as



white flour, sugar, rice, soft drinks, alcohol, powdered milk and high-fat cheap cuts of meat. Many 'urbanized' Australians consume a diet in which these foods are not staples. To describe this eating pattern simply as an 'urbanized Western diet' shifts blame for poor health outcomes onto the processes of urbanization and Westernization, and away from the specifics of diet in remote Aboriginal communities, known to be associated with isolation and socioeconomic distress. This confounds attempts to identify what features of Aboriginal diet and lifestyle in Mowanjum might be responsible for disproportionately high rates of diabetes.

*Protein Power's* account of Aboriginal Australians being (passively) 'exposed' to an urbanized diet elides the complex historical circumstances in which Aboriginal diet has changed since British colonization., Dietary change has frequently been associated with the displacement, dispossession and disempowerment of Aboriginal people:

[T]he removal of [I]ndigenous people onto reserves and missions or decentralizing them to cattle stations [...] meant that they no longer had the same availability or access to traditional foods. [...] They [were] given rations, which included rice, flour, sugar, tea and to a lesser extent, meat and it was often [...] salty and high in fat. The communal feeding led to a breakdown in the pattern of food [...] security, [and] preparation and also a great loss in knowledge and hand over of that through the generations. (Shannon 2002, S577)

The National Health & Medical Research Council stresses that the cessation of communal feeding in Indigenous settlements following the 1967 referendum reforms did not lead to major nutritional changes. Although Aboriginal people could now purchase their own food, 'with little money and little choice of foodstuffs, they had no option but to make do with a poor diet consisting mainly of white flour, sugar, tea and meat' (NHMRC 2000, 39).<sup>9</sup> Despite efforts to improve the quality, range and affordability of fresh produce in remote community stores, in many cases the situation remains similar today, due partly to geographic isolation (Shannon 2002, S577; NHMRC 2000, 59).

The parallel drawn between Americans and Indigenous Australians with regard to diabetes is also misleading. In 2007, just under 6 percent of Americans had been diagnosed with diabetes

(Centers for Disease Control 2007). As noted above, the age-standardized figure amongst Aboriginal and Torres Strait Islander peoples is 12.3 percent. The authors retract the parallel very quickly anyway: the short but powerful word 'but' preserves Americans from the unfortunate and rapid demise allotted the 'aborigine'. The claim that Aboriginal Australians develop hyperinsulinemia and diabetes 'much more quickly' than genetically-predisposed Americans begs the question, why? Since both groups are said to be genetically predisposed (though this assertion is unproven), the answer would seem to be one of the known environmental, socioeconomic, or lifestyle risk factors which distinguish the two groups. But Eades and Eades do not address this issue. Instead, I argue, the claim that Aboriginal Australians fall ill 'much more quickly' than Americans reflects an 'anxiety over the preservation of limit, boundary, and difference' between Western self and primitive Other (Spurr 1993, 87). The designation of the Other as abject (miserable, filthy, diseased) reinforces 'a fundamental difference between colonizer and colonized' (Spurr, 1993, 78). In the context of the diabetes epidemic, the alacrity with which *Protein Power* distinguishes American from Aboriginal arguably reflects fear not only of disease *per se*, but of the fall of Western civilization which the diabetes and obesity crisis might spell. Gard and Wright (2005) argue convincingly that the cultural narrative of the obesity epidemic 'conforms to a familiar story about Western decadence and decline' (2). This narrative, they suggest, incorporates both a moral critique of current Western lifestyles, and a set of 'dire predictions' about the consequences of the so-called epidemic (3). These include massive projected reductions in life expectancy, reproductive fertility and economic productivity, and rapidly escalating health costs to the taxpaying community.

The representation of Aboriginal Australians in *Protein Power* recalls colonial images of the colonized subject as sick, dying, dying *out*. As represented in *Protein Power*, 'aborigines' are inherently predisposed to illness, become ill in large numbers, and do so quickly, with a disease that

is ultimately fatal and (though it can be controlled) has no known cure. Textual and visual images of Aboriginal abjection are familiar in the Australian media. In the context of child abuse, Langton (2007) describes such representations of Indigenous suffering as 'visual and intellectual pornography [...] a vast "reality show" [that] shifts attention away from everyday lived crisis' (1). Like Langton, I would in no way play down the seriousness of social and public health problems in remote Aboriginal communities. But images of Aboriginal abjection are 'metaphorically loaded' even when they are superficially accurate (Spurr 1993, 89). As Poudrier (2007) writes in the Canadian context,

certain types of medical/health discourse operate as powerful forms of regulatory surveillance, which are based on the representation and reiteration of Aboriginal peoples as sick, disorganized and dependent, and which legitimate paternalistic and regulatory management over Aboriginal health in communities. (256)  
Paradoxically, images of Aboriginal abjection may equally justify a *lack* of intervention or action, both at the political level and 'on the ground'. Genetic explanations for diabetes can produce a sense of 'fatalism and therapeutic nihilism' amongst healthcare workers and Indigenous patients which ultimately compromises clinical care, quality of life, and mortality risk (McDermott 1998, 1190).

As they describe O'Dea and Spargo's research in Mowanjum, Eades and Eades draw parallels between Aboriginal Australian diet and that of American teenagers:

Dr. O'Dea began her studies by looking at the baseline insulin and glucose levels of urbanized aborigine subjects who were consuming a Western diet. She found that both the insulin and the glucose levels were significantly elevated, which should come as no surprise when we consider the diet they were eating: 'white flour, white sugar, white rice, carbonated drinks, alcoholic beverages (beer, port), powdered milk and cheap fatty meat.' *This sounds a lot like the diet of the majority of teenagers in America today.* When we look at the composition of this diet in terms of the three nutrient types, we find that it is 'high in refined carbohydrate (40-50%) and fat (40-50%) and relatively low in protein (< or = 10%)' or almost precisely the same composition as the typical American diet. (Eades and Eades 1996, 46, original italics; citing O'Dea and Spargo 1982, 495)<sup>10</sup>

The claim that the macronutrient composition of the participants' diet was 'almost precisely the same [...] as the typical American diet' stretches the limits of comparison. The US National Health and Nutrition Examination Survey 1999-2000 (Wright et al. 2004, 1194) found that Americans were consuming much less fat as a proportion of energy intake than O'Dea's participants (32.8

percent), and at least half as much protein again, with significant implications for health. Further, the misleading parallel Eades and Eades draw between Aboriginal Australians and American teenagers recalls racist evolutionary models of development which posit Indigenous people as childlike and immature – while also problematically constructing young people as ‘primitive’.

Poverty, disadvantage and isolation all affect the food choices open to Indigenous people. Median household income for Indigenous Australians is 65 percent of the non-Indigenous median (SCRGSP 2009, 22), and 30 percent of adult Aboriginal Australians experience food insecurity – ‘worry at least occasionally about going without food’ (NHMRC 2000, 54). For Indigenous people in remote areas, the problem is compounded by the high cost of food, due to increased transport, storage and wastage costs outside major cities (NHMRC 2000, 56-7). Grocery prices in the mid-1990s were 56 percent higher in the Kimberley than in Perth (Zakrevsky, Binns and Gracey 1996). High rates of smoking and substance abuse compound the problem further, by diverting limited income which might otherwise be spent on food (NHMRC 2000, 64; SCRGSP 2009, 40, 56). Eades and Eades mistake a dietary pattern shaped by socioeconomic distress, historical subjection and discrimination, and geographic isolation for the stereotypical junk-food-filled diet of American teen culture. It is worth stressing that the representation of adolescent American diet here is equally simplistic, and that the eating habits of teenagers in the United States are similarly subject to socioeconomic and environmental factors. Like other low-carbohydrate diet books, *Protein Power* simply does not attend to the social, economic and political matrix in which food is produced, processed, distributed and consumed (Brenton 2004b).

The authors proceed to describe the methods O’Dea employed in her subsequent study, in which a group of Aboriginal people from Mowanjum agreed to spend seven weeks on their traditional lands, hunting, fishing and foraging for food:

Dr. O'Dea then started these people on her experimental diet, which she designed to approximate the original native diet they would consume were they back in the bush [...] / [Their] success [on the experimental diet] inspired Dr. O'Dea to undertake what turned out to be a prolonged and exceptionally enlightening study. She gathered a group of middle-aged, hyperinsulinemic, diabetic, mildly overweight aborigine subjects who had been living on a Western diet much like the one just detailed. These subjects agreed to return to 'their traditional country in an isolated location' in western Australia [*sic*] for seven weeks, during which they would live the lives of hunter-gatherers. (Eades and Eades 1996, 46-47; citing O'Dea 1984, 597)

The construction of O'Dea's research protocol as a 'return' to 'original native diet' by going 'back [to] the bush' betrays naïve and unrealistic stereotype. The description of O'Dea's follow-up study resembles the advertising blurb for a new reality television show.<sup>11</sup> Note the mysterious and remote setting, the seven-week duration of the 'challenge', and the element of role-play or historical re-enactment suggested by the phrase '*live the lives of hunter-gatherers*'.

My point is that this is *not* 'real life' but a version constructed through the social, cultural and economic apparatus of scientific experiment. The funding of medical research in Australia, and the existence of cultural norms regarding the value and validity of such research, have enabled a researcher to recruit a group of Indigenous people, relocate them for a relatively short period, and thus artificially create a set of food practices which would not otherwise have been carried out by these people, at that time, in that place. These practices are observed, recorded, interpreted and reported by the researcher, and then recounted in *Protein Power* as a 'return' to 'traditional' diet and lifestyle. O'Dea's experimental design involves major disruption and dislocation which interfere with family life, employment, social and community activities, and access to health and other facilities. A recent review on low-carbohydrate dieting noted that '[w]hen [O'Dea's] study subjects returned to their previous urban lifestyle, the weight and diabetes returned' (Westman et al. 2007, 281). O'Dea herself stresses that 'it is not necessary [for Aboriginal people] to revert totally to traditional lifestyle in order to prevent or attempt to reverse diabetes.' Rather, she argues, 'certain characteristics of that lifestyle must be incorporated into any future public health programs: high physical activity, low-fat diets, and control of body weight' (O'Dea 1984, 603). In this case, what

does O'Dea's research on 'traditional lifestyle' achieve except to reinforce nutritional dogma on the value of exercise, weight-loss and reduced fat intake? The focus on 'traditional lifestyle' would appear redundant, reflecting a quasi-anthropological anxiety to study 'vanishing' ways of life while still available.

My argument is supported by O'Dea, Spargo and Akerman's own introduction to an earlier, similar study with Mowanjum residents (1980):

It is still possible to find groups of Aborigines in outback regions of Australia who, despite living in an urban setting for most of the time, retain the knowledge and ability to survive in their traditional environment as hunters and gatherers. We felt that we had a unique and apparently disappearing opportunity to compare traditional and urban metabolic responses in [an Aboriginal] population [...]. (31-2)

The authors implicitly recognize here that not all Indigenous people 'retain' the skills to hunt and gather their food. Today, 38 percent of Aboriginal and Torres Strait Islander adults living outside remote areas do not identify any area as their 'homelands' (SCRGSP 2009, 54). But the excerpt also betrays troubling presumptions: that 'traditional' Aboriginal life is inevitably disappearing, and that Aboriginal people who do live traditionally are the natural prey of the researcher. In the conclusion to the 1982 study discussed in *Protein Power*, O'Dea and Spargo suggest that '[a]dopting elements of the traditional lifestyle periodically would provide a practical and acceptable approach to the problem' of type 2 diabetes in urban Aboriginal communities (498). I would not deny that periodic visits to traditional lands are an integral part of life for many Aboriginal people in Australia who have access to their homelands. My concern is with the prescriptiveness of this approach, its construction as a 'reversion' to a former way of life, and the presumption that this is a uniquely appropriate public health solution for Indigenous people. It is unimaginable that a nutrition researcher would propose a similar diabetes prescription for non-Indigenous Australians, let alone carry out a study in which non-Indigenous people were transported hundreds (if not thousands) of kilometres from their home town and asked to 'revert' to their ancestral or traditional way of life. A more recent Aboriginal-directed 'healthy lifestyle' project in which O'Dea was involved provides

an illustrative comparison; it included 'regular hunting trips' as just one of a plethora of diet and exercise programs initiated by the Looma community (also in the Kimberley region) to address type 2 diabetes. Other initiatives included education sessions, cooking classes and store tours; participation in basketball, football or walking groups; and 'dietary changes such as [...] increasing consumption of fresh vegetables and fruit' (Rowley et al. 2000, 137).

Eades and Eades next summarize the participants' blood chemistry results, and conclude:

Dr. O'Dea discovered by actual experimentation with a group of people afflicted with one of the diseases of civilization the same thing that anthropologists learned by examining the mummy and skeletal data: the carbohydrate-restricted, high-protein diet confers optimal health on its followers. (48)

The conclusion in this passage draws rather a long bow. O'Dea's research demonstrated normalization of plasma lipids in her participants, as well as 'greatly improved' glucose tolerance and insulin response to glucose (O'Dea 1984, 602). However, to describe this as 'optimal health' seems exaggerated, given that the participants in the study continued to suffer from abnormalities in glucose metabolism, and most remained overweight (O'Dea 1984, 599). I would suggest that what the passage attempts is to impose conclusions that Eades and Eades have drawn from 'mummy and skeletal data' onto O'Dea's research with Aboriginal Australians, whether or not these conclusions fit.

The 'mummy and skeletal data' are the subject of *Protein Power's* Epilogue (394-408), which examines paleopathological and anthropological evidence for the diet and health of various historical populations, including ancient Egyptians.<sup>12</sup> Eades and Eades review paleopathological studies of ancient Egyptian mummies and conclude that ancient Egyptians were obese, suffered terrible dental and gum disease, and had high rates of coronary artery mortality. They argue that the high-carbohydrate Egyptian diet, rich in whole grains, fruit and vegetables, must have caused these health problems. At the very least, this diet failed to protect the Egyptians from overweight and

disease. Based on this evidence, the authors conclude that modern dietary guidelines emphasizing high levels of carbohydrate must be wrong. In *Protein Power's* logic, the obese and diseased bodies of the Egyptians prefigure the obese and diseased bodies of modern Westerners; the decline of ancient Egyptian civilization functions as an ominous sign of the potential effect of the obesity epidemic on the West, should the high-carbohydrate tide not be stemmed. The passage above draws Aboriginal bodies and society into this cautionary narrative as further examples of degeneration and decline.

The analogy drawn between the participants in O'Dea's study and mummified or skeletal remains – *the remains of dead people* – is startling. Like nineteenth-century 'doomed race theory' (McGregor 1997), the analogy treats Aboriginal Australians as metaphorically (as good as) dead, their inevitable demise only a matter of time. The comparison makes breathtakingly clear the force of treating the Other as (only) a research resource. There is no room left to see the people who participated in O'Dea's study as living human beings with lives of their own. The parallel also confirms the evolutionary position of Aboriginal Australians as 'remnants' of earlier human groups, the logic I critiqued earlier in relation to the Inuit. The construction of Aboriginal people as evolutionary 'remnants' cements their status as a research resource: recall O'Dea and others' anxiety to study traditional Aboriginal foodways before they disappear. In this logic, Indigenous people function (like mummies and other archeological remains) as a site of access to primitive origins in the contemporary world (Torgovnick 1990, 187).

Throughout the discussion of O'Dea's research, *Protein Power* repeatedly stereotypes, and occasionally pokes fun at, Aboriginal Australians. The very concept of 'the bush', to which the title of the section refers, is the stereotypical exotic Australian locale, peopled by the equally exotic and



stereotyped 'aborigines'. The final paragraph of the section on Aboriginal Australians brings these racist stereotypes into sharp focus:

You are probably wondering if you need to start subsisting on snails, turtles, kangaroo, crocodiles, crickets, and other diverse beasts to get your cholesterol down. That would work, but you don't have to go to those lengths. Our regimen provides all the benefits of the hunter-gatherer diet but uses foods that you capture at the grocery store and even in the wilds of the nearest fast-food outlet. All we need to gain the benefits of the hunter-gatherer diet is to consume a diet that approximates it in nutritional composition, which we can do easily. (48)

As I noted earlier, there is no question that readers of *Protein Power* should be prescribed a 'reversion to traditional lifestyle' as the remedy for civilized ill-health. Instead it is sufficient for non-Indigenous people to mimic the macronutrient breakdown of the hunter-gatherer diet. The passage above constructs a familiar division between us and them. We (the civilized readers of diet books) eat domesticated mammals and birds. They (the uncivilized Other) eat wild insects, reptiles and 'other diverse beasts' that repel the civilized eater. Of course, the distinction between edible and inedible is a cultural construction. Snails are famously popular in French cuisine, and Australian readers may well resist the construction of kangaroo and crocodile meat as exotic and repugnant.

Mouton points out that the 'cross-cultural comparisons' made by many low-carbohydrate authors 'appeal to Americans' sense of cultural superiority'. She argues that this is unfounded: 'Underlying these comparisons is a false assumption that all Americans, by contrast with more homogenous and "primitive" peoples, have ultimate diversity in, access to, and choice over the foods they eat' (para. 20). In theory, Americans need not eat snails, turtles and crickets because they have the choice to eat otherwise: to shop at the grocery store or a fast-food outlet. But the 'false assumption' of choice cuts both ways. On the one hand, this ignores the factors that limit people's food choices within Western societies: low-carbohydrate diets, with their liberal servings of seafood, steak and nutrient-dense vegetables, are not within everyone's food budget (Bentley 2004, 41). Western social structures impose further constraints on our eating habits that are often

forgotten. Private land ownership makes it very difficult for many Westerners, especially those in urban areas, to forage or hunt for wild foods. On the other hand, the 'false assumption of choice' obscures the fact that Indigenous people possess the agency to make choices about how they eat, notwithstanding the historical, geographic and socioeconomic constraints I have highlighted in this paper. By the conclusion of *Protein Power*'s section on Aboriginal Australians, Indigenous people have become the primitive and static Other 'subsisting' on a traditional diet 'out there' in the bush. In this context, it is unthinkable that an Indigenous person might choose to follow a low-carbohydrate diet by shopping at the supermarket like other Australian dieters.

The representation of Aboriginal Australians and North American Inuit in *Protein Power* is striking in its naiveté. The stereotyping of Indigenous people, and the parallels drawn between Indigenous people and archeological remains, are disturbing. These tropes depend on an outdated model of evolutionary development which posits contemporary Indigenous groups as remnants of 'our primitive ancestors'. As I have discussed, *Protein Power* presents two related images of Indigenous people –on the one hand, culturally pristine and exceptionally healthy; on the other, abject and diseased due to 'exposure' to Western diet. Deborah Bird Rose points out that the twin stereotypes of 'Noble Savage' and 'dismal savage' are both 'dead ends' (Rose 2001, 44); neither can reflect the complexity of local conditions (Spurr 1993, 89). Thus the reduction of contemporary Indigenous foodways to the binary urbanized Western diet / traditional Indigenous diet cannot account for cultural and historical context, nor for socio-environmental factors implicated in diabetes and obesity. Rather, the urban Western / traditional Indigenous dichotomy constructs the West and Westernization as inherently 'bad' and unhealthy, especially for so-called primitive people. Within this narrative, Indigenous health problems are transformed into a microcosm of the potential nutritional disaster facing the West. For Indigenous people, *Protein Power* implies, a

'reversion to tradition' will be the uniquely appropriate solution. Westerners, by contrast, need only mimic the macronutrient breakdown of the hunter-gatherer diet to restore the health Nature intended them to enjoy.

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<sup>1</sup> *The Atkins Diet and Philosophy* (Heldke, Mommer and Pineo 2005) is a collection of essays, but its primary purpose is to explain philosophical concepts for a general audience using examples from popular culture, rather than engaging in depth with low-carbohydrate dieting.

<sup>2</sup> <http://content.usatoday.com/life/books/booksdatabase/default.aspx>

<sup>3</sup> [www.proteinpower.com](http://www.proteinpower.com)

<sup>4</sup> I briefly discuss *Protein Power's* representation of the Inuit in a previous essay for a general audience (Knight 2005, 50-52).

<sup>5</sup> Although the term Eskimo is 'still widely used and not considered to be pejorative' in Alaska, outside the United States it is generally considered derogatory (Bjerregaard et al. 2004, 390). I follow Young and colleagues (2007) in using Inuit 'as a collective term encompassing various regional groups' in Siberia, Alaska, Canada and Greenland (691).

<sup>6</sup> Inuit health was by no means perfect in the early twentieth century either. The arrival of Europeans in the Arctic heralded the spread of infectious diseases (notably tuberculosis) which had 'devastating consequences' for the Inuit population (Bjerregaard et al. 2004, 391).

<sup>7</sup> Mowanjum residents come from three language groups: the Worora, Ngarinyin, and Wunumbul. I therefore refer to the participants in O'Dea's research collectively as Aboriginal Australians.

<sup>8</sup> These associations do not necessarily imply a causal relationship. The idea that obesity causes type 2 diabetes 'rather than being a symptom', and is in itself a disease requiring treatment, has been subject to criticism (Ross 2005, 106).

<sup>9</sup> Lawrence and Gibson (2007) highlight the continuity between rationing and more recent governmental relationships between Aboriginal Australians and the state.

<sup>10</sup> In fact the participants in this study were of normal weight and non-diabetic, and did not demonstrate elevated fasting insulin or glucose levels at baseline. I suspect Eades and Eades have confused this study (O'Dea and Spargo 1982) with the subsequent study (O'Dea 1984) they describe later.

<sup>11</sup> I have already noted the same metaphor used by Langton (2007), though I would not consider *Protein Power's* 'reality show' to be 'pornographic' to the same extent.

<sup>12</sup> There are various inconsistencies in *Protein Power* and its bibliography which suggest that the Epilogue material was originally intended to be placed earlier in the book, before the discussion of O'Dea's research. In this case, readers would have been familiar with the ancient Egypt material by the time they read the commentary on Australian Aboriginal health.

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Agatston, Arthur. 2003. *The South Beach diet*. London: Headline.

- Atkins, Robert C. 2002. *Dr. Atkins' new diet revolution*. New York: HarperCollins.
- Bentley, Amy. 2004. The other Atkins revolution: Atkins and the shifting culture of dieting. *Gastronomica* 4, no. 3: 34-45.
- Bjerregaard, Peter, and T. Kue Young. 1998. *The circumpolar Inuit: Health of a population in transition*. Copenhagen: Munksgaard.
- Bjerregaard, Peter, T. Kue Young, Eric Dewailly, and Sven O.E. Ebbesson. 2004. Indigenous health in the Arctic: An overview of the circumpolar Inuit population. *Scandinavian Journal of Public Health* 32: 390-395.
- Brenton, Barrett P. 2003. Evolutionary nutrition and Paleolithic proscriptions on eating: Part I. *Northeastern Anthropological Association Newsletter* 26, no. 1: 4-6.
- Brenton, Barrett P. 2004a. Evolutionary nutrition and Paleolithic proscriptions on eating: Part II. *Northeastern Anthropological Association Newsletter* 26, no. 3: 4-6.
- Brenton, Barrett P. 2004b. From 'ape-man' to the Atkins plan: Evolutionary dialectics on the symbolic foraging to farming divide. Paper presented at the joint annual meetings of the Association for the Study of Food and Society and the Agriculture, Food, and Human Values Society, June 10-13 in Hyde Park, NY.
- Centers for Disease Control. 2007. *National Diabetes Fact Sheet*. Atlanta, Georgia: Department of Health and Human Services.
- Cordain, Loren. 2001. *The Paleo diet*. John Wiley & Sons.
- Cordain, Loren, Michael R. Eades, and Mary Dan Eades. 2003. Hyperinsulinemic diseases of civilization: More than just Syndrome X. *Comparative Biochemistry and Physiology* 136: A95-112.
- Eades, Michael R., and Mary Dan Eades. 1996. *Protein Power*. New York: Bantam.
- Fabian, Johannes. 1983. *Time and the Other: How anthropology makes its object*. New York: Columbia University Press.
- Gard, Michael, and Jan Wright. 2005. *The obesity epidemic: Science, morality and ideology*. London: Routledge.
- Knight, Christine. 2005. 'The food nature intended you to eat': Low-carbohydrate diets and primitivist philosophy. In Heldke, Mommer and Pineo, 43-56.
- Knight, Christine. 2006. Nostalgia and authenticity in low-carbohydrate dieting. In *Authenticity in the kitchen: Proceedings of the Oxford Symposium on Food and Cookery 2005*, ed. R. Hosking. Totnes, Devon: Prospect Books.
- Knight, Christine. 2008. 'The food nature intended you to eat': Nutritional primitivism in low-carbohydrate diet discourse. PhD diss., University of Adelaide.
- Knight, Christine. Forthcoming. 'Most people are simply not designed to eat pasta': Evolutionary explanations for obesity in the low-carbohydrate diet movement. *Public Understanding of Science*.
- Langton, Marcia. 2007. Trapped in the Aboriginal reality show. *Griffith Review* 19.
- Lawrence, Rebecca, and Chris Gibson. 2007. Obliging Indigenous citizens? Shared responsibility agreements in Australian Aboriginal communities. *Cultural Studies* 21, nos. 4-5: 650-71.
- McDermott, Robyn. 1998. Ethics, epidemiology and the thrifty gene: Biological determinism as a health hazard. *Social Science & Medicine* 47, no. 9: 1189-95.
- McGregor, Russell. 1997. *Imagined destinies: Aboriginal Australians and the doomed race theory, 1880-1939*. Carlton South, Victoria: Melbourne University Press.
- Mouton, Michelle. 2001. 'Doing Banting': High-protein diets in the Victorian period and now. *Studies in Popular Culture* 24, no. 1: 17-32.
- National Health & Medical Research Council. 2000. *Nutrition in Aboriginal and Torres Strait Islander peoples: An information paper*. Canberra: NHMRC.

- O'Dea, Kerin. 1984. Marked improvement in carbohydrate and lipid metabolism in diabetic Australian Aborigines after temporary reversion to traditional lifestyle. *Diabetes* 33: 596-603.
- O'Dea, K. 1991a. Glucose and insulin responses to carbohydrate ingestion: Acute and long-term consequences. In *Obesity: Dietary Factors and Control*, ed. Romsos, Himms-Hagen and Suzuki. Tokyo: Japan Scientific Societies Press.
- O'Dea, Kerin. 1991b. Westernisation, insulin resistance and diabetes in Australian Aborigines. *Medical Journal of Australia* 155: 258-264.
- O'Dea, K., and R.M. Spargo. 1982. Metabolic adaptation to a low carbohydrate-high protein ('traditional') diet in Australian Aborigines. *Diabetologia* 23: 494-498.
- O'Dea, Kerin, Randolph M. Spargo, and Kim Akerman. 1980. The effect of transition from traditional to urban life-style on the insulin secretory response in Australian Aborigines. *Diabetes Care* 3, no. 1: 31-37.
- O'Dea, K., R.M. Spargo, and P.J. Nestel. 1982. Impact of Westernization on carbohydrate and lipid metabolism in Australian Aborigines. *Diabetologia* 22: 148-153.
- O'Dea, Kerin, Kathy Traianedes, John L. Hopper, and Richard G. Larkins. 1988. Impaired glucose tolerance, hyperinsulinemia, and hypertriglyceridemia in Australian Aborigines from the desert. *Diabetes Care* 11, no. 1: 23-29.
- Poudrier, Jennifer. 2007. The geneticization of Aboriginal diabetes and obesity: Adding another scene to the story of the thrifty gene. *Canadian Review of Sociology and Anthropology* 44, no. 2: 237-261.
- Rose, Deborah Bird. 2001. Decolonising the discourse of environmental knowledge in settler societies. *UTS Review* 7, no. 2: 43-58.
- Ross, Bruce. 2005. Fat or fiction: Weighing the 'obesity epidemic'. In Gard and Wright, 86-106.
- Rowley, Kevin G., Mark Daniel, Karen Skinner, Michelle Skinner, Gwyneth A. White, and Kerin O'Dea. 2000. Effectiveness of a community-directed 'healthy lifestyle' program in a remote Australian Aboriginal community. *Australian and New Zealand Journal of Public Health* 24, no. 2: 136-44.
- Sears, Barry. 1995. *The zone: A dietary road map*. New York: HarperCollins.
- Shannon, Cindy. 2002. Acculturation: Aboriginal and Torres Strait Islander nutrition. *Asia Pacific Journal of Clinical Nutrition* 11 (Supplement): S576-S578.
- Spurr, David. 1993. *The rhetoric of empire: Colonial discourse in journalism, travel writing, and imperial administration*. Durham: Duke University Press.
- Steering Committee for the Review of Government Service Provision. 2007. *Overcoming Indigenous disadvantage: Key indicators 2007 report*. Canberra: Productivity Commission.
- Steering Committee for the Review of Government Service Provision. 2009. *Overcoming Indigenous disadvantage: Key indicators 2009 overview*. Canberra: Productivity Commission.
- Stefánsson, Vilhjalmur. 1956. *The fat of the land*. New York: MacMillan.
- Steward, H. Leighton, Morrison C. Bethea, Sam S. Andrews, and Luis A. Balart. 1998. *Sugar busters! Cut sugar to trim fat*. New York: Ballantine.
- Torgovnick, Marianna. 1990. *Gone primitive: Savage intellects, modern lives*. Chicago: University of Chicago Press.
- Westman, Eric C., Richard D. Feinman, John C. Mavropoulos, Mary C. Vernon, Jeff S. Volek, James A. Wortman, William S. Yancy, and Stephen D. Phinney. 2007. Low-carbohydrate nutrition and metabolism. *American Journal of Clinical Nutrition* 86: 276-284.

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- Wright, J. D., J. Kennedy-Stephenson, C. Y. Wang, M. A. McDowell, and C. L. Johnson. 2004. Trends in intake of energy and macronutrients – United States, 1971-2000. *Journal of the American Medical Association* 291, no. 10: 1193-1194.
- Young, T. Kue, Peter Bjerregaard, Eric Dewailly, Patricia M. Risica, Marit E. Jørgensen, and Sven O. E. Ebbesson. 2007. Prevalence of obesity and its metabolic correlates among the circumpolar Inuit in 3 countries. *American Journal of Public Health* 97, no. 4: 691-695.
- Zakrevsky, E., C. Binns, and M. Gracey. 1996. *Aboriginal community foodstores project: Assessment of nutritional status*. Perth: Health Department of Western Australia.