

# The implications of starvation induced psychological changes for the ethical treatment of hunger strikers

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**Objective:** To evaluate existing ethical guidelines for the treatment of hunger strikers in light of findings on psychological changes that accompany the cessation of food intake.

**Design:** Electronic databases were searched for (a) editorials and ethical proclamations on hunger strikers and their treatment; (b) studies of voluntary and involuntary starvation, and (c) legal cases pertaining to hunger striking. Additional studies were gathered in a snowball fashion from the published material cited in these databases. Material was included if it (a) provided ethical or legal guidelines; (b) shed light on psychological changes accompanying starvation, or (c) illustrated the practice of hunger striking. Authors' observations, opinions, and conclusions were noted.

**Conclusions:** Although the heterogeneous nature of the sources precluded statistical analysis, starvation appears to be accompanied by marked psychological changes. Some changes clearly impair competence, in which case physicians are advised to follow advance directives obtained early in the hunger strike. More problematic are increases in impulsivity and aggressivity, changes which, while not impairing competence, enhance the likelihood that patients will starve themselves to death.

Hunger striking, the voluntary refusal of food in an attempt to achieve a political goal or other social manipulation, has become increasingly frequent. Prominent past cases include British suffragettes in the early 1900s, followed later by Gandhi, dissidents in the Soviet Union, and, over many decades, numerous imprisoned Irish Nationalists.<sup>1–2</sup> In the last decade, hunger striking has been conspicuously employed by, among others, South African, Chinese, Turkish, Spanish, Moroccan, and Palestinian detainees,<sup>1–7</sup> alleged Al Qaeda and Taliban prisoners,<sup>8–9</sup> Canadian, Australian, and US prisoners seeking an improvement of prison conditions,<sup>10–12</sup> a wide range of immigrants, refugees, and political asylum seekers,<sup>1–15</sup> Tibetan refugees and Falun Gong adherents seeking to publicise Chinese oppression,<sup>16–17</sup> Korean Americans protesting against US military policy in Korea,<sup>18</sup> a US environmentalist protesting environmental degradation,<sup>19</sup> US workers seeking to unionise or gain employer concessions,<sup>20–23</sup> Russian miners and teachers seeking back wages,<sup>24–25</sup> Honduran Indians seeking land grants,<sup>26</sup> Azerbaijani newspaper editors protesting censorship,<sup>27</sup> US pastors seeking to end the embargo of Cuba,<sup>28</sup> Cuban activists protesting human rights abuses,<sup>29</sup> US activists protesting human rights abuses in Latin America,<sup>30–31</sup> British animal rights activists,<sup>32</sup> Australian physicians seeking to alter medical regulations,<sup>33</sup> Indian and Polish physicians protesting poor contracts and inadequate working conditions,<sup>34–35</sup> US, Greek, and French students and parents seeking to influence academic policies,<sup>36–42</sup> a Thai member of parliament seeking political reform,<sup>43</sup> a Canadian politician objecting to unbalanced media coverage,<sup>44</sup> the former president of South Korea, objecting to his trial on corruption charges,<sup>45</sup> Russian academics demanding government support for science,<sup>46</sup> a US researcher seeking to highlight scientific fraud,<sup>47</sup> and a US professor seeking to reverse a tenure decision.<sup>48</sup> As this diverse and tragic litany suggests, the use of hunger striking appears to be increasing.<sup>49</sup> Hunger strikes derive their utility from the harm that negative publicity inflicts on powerful individuals or institutions, as those in power must either accede to the striker's demands or be seen as responsible for the striker's death. Technological advances such as the internet, satellite and cable television, and fax machines are dramatically

changing the way in which information is disseminated, with the result that disaffected individuals and groups are able to publicise their causes to a hitherto unprecedented degree. As a result, it is likely that hunger strikes will become increasingly common. The accelerating popularity of hunger striking is underlined by the fact that during the nine month period between submission of the final version of this article and the production of the article's galley proofs, 27 additional hunger striking incidents were reported in the global press.

At least 67 people have died in hunger strikes in recent times,<sup>7–17–25–32–50</sup> a figure that does not include those who have committed suicide or severely injured themselves in the course of such strikes.<sup>15–51–52</sup> The relevance of such behaviour will become clearer later in this article. Moreover, while it is admittedly difficult to calculate the risks entailed in hunger striking given the unique circumstances of each case, it is likely that news accounts underestimate starving patients' willingness to harm themselves since hunger striking is often a fairly successful form of protest—authorities frequently capitulate or negotiate before irreversible harm has occurred.<sup>42</sup> In short, there is reason to believe that, while most physicians will never be called on to care for hunger strikers, those who are face a serious task indeed. Hunger striking presents medical personnel with a fundamental dilemma, for there is a conflict between the duty to preserve life and the obligation to respect the autonomy of the patient. Formal ethical pronouncements to date have weighted the latter over the former. These positions overlook the fact, however, that hunger striking results in psychological changes that cloud the issue considerably, changes which ultimately raise questions as to the nature of the individual as a unique decision making entity.

## CURRENT ETHICAL AND LEGAL PRONOUNCEMENTS ON THE TREATMENT OF HUNGER STRIKERS

Drawing upon the principle of informed consent, the World Medical Association's (WMA) Tokyo declaration<sup>53</sup> states that "Where a prisoner refuses nourishment and is considered by the doctor as capable of forming an unimpaired and rational

judgment concerning the consequences of such a voluntary refusal of nourishment, he or she shall not be fed artificially". Broadening and refining this pronouncement, the WMA's Declaration on Hunger Strikers<sup>54</sup> defines a hunger striker as "a mentally competent person who has indicated that he has decided to embark on a hunger strike and has refused to take food and/or fluids for a significant interval". Attending physicians are instructed that "The hunger striker must be professionally informed by the doctor of the clinical consequences of a hunger strike, and of any specific danger to his own particular case". The British Medical Association has adopted a similar position, stating that no patient who is capable of forming a rational judgment and is aware of the consequences of refusing food should be force fed.<sup>55</sup>

While British courts have supported the right to refuse food,<sup>56</sup> US courts have largely failed to do so. In two cases US courts ruled in favour of the force feeding of prisoners<sup>57</sup> and, more recently, US courts supplied a court order for the force feeding of prisoners captured during US military operations in Afghanistan.<sup>8,9</sup> In 1990 the US Supreme Court<sup>58</sup> ruled on a request to withdraw care from a vegetative accident victim. Although the court noted that "*For purposes of this case, it is assumed that a competent person would have a constitutionally protected right to refuse lifesaving hydration and nutrition,*" consistent with the highly qualified nature of this statement, the majority also held that "As a general matter, the States—indeed, all civilised nations—demonstrate their commitment to life. ... Moreover, the majority of States in this country have laws imposing criminal penalties on one who assists another to commit suicide. We do not think a State is required to remain neutral in the face of an informed and voluntary decision by a physically able adult to starve to death (emphasis added)."<sup>59</sup>

Although legal rulings exhibit considerable international variation in the West, current ethical pronouncements uniformly assimilate the treatment of hunger strikers to existing schemas of medical practice. The first question addressed is that of competence. Irrational or otherwise impaired individuals are not considered autonomous agents, and hence the physician is to resort to the protective imperative regardless of such individuals' wishes, as was recently done in a British case.<sup>60</sup> The autonomy of competent individuals is, however, to be respected, for to do otherwise is, from both ethical and legal perspectives, to commit assault.<sup>56,61</sup> Competence hinges on the ability to make an informed decision, having weighed the costs and benefits in light of one's own beliefs.<sup>62-64</sup> Accordingly, physicians must (a) ensure that the hunger striker understands the potential health consequences of his or her actions, and (b) evaluate the hunger striker's specific competence<sup>64</sup> to decide to refuse food in light of that understanding. If both assessments are positive, the resulting decision must be respected regardless of the extent to which the physician concurs, or even considers it a sensible or defensible position.<sup>56</sup>

Because hunger striking will, if carried to its ultimate conclusion, result in overt mental deterioration and hence a loss of competence, physicians are instructed to arm themselves against this possibility by obtaining clear information in advance. For example, the Malta declaration states "The doctor should ... ascertain on a daily basis what the patient's wishes are with regard to treatment should he become unable to make an informed decision".<sup>54</sup> Physicians are thus advised to obtain a living will type advance directive that will guide them in conforming to the patient's wishes should starvation progress to the point that the patient becomes confused, incoherent, or lapses into a coma.<sup>1</sup> As Annas has noted, however, such a step does not wholly solve ethical dilemmas for, given the nature of hunger striking as a political strategy, such documents may themselves constitute publicly broadcast manipulative devices rather than true directives.<sup>65</sup> More troubling still, the issue of competence is far more complex than it might at first appear.

## EVIDENCE OF STARVATION INDUCED PSYCHOLOGICAL CHANGES

To date, the issue of starvation induced loss of competence in hunger strikers has been raised primarily with regard to late stages of the condition.<sup>66</sup> There is reason to believe, however, that such a change can occur much earlier in the process, long before death is an imminent possibility. No systematic accounts have been published regarding psychological changes accompanying hunger striking. Nevertheless, potentially germane findings can be gleaned from reports of the consequences of drastic dietary restriction in contexts other than hunger striking. Studies of the effects of "crash" diets and "therapeutic" starvation on clinically obese patients indicate that dramatic caloric restriction can result in an impairment of competence independent of the level of bodily energetic reserves. Investigators have noted that patients, often with no previous history of psychiatric disorder, may manifest megalomaniac and persecutory delusions, auditory hallucinations, somatisation, dissociation, suicidality, and confusion.<sup>67-70</sup> These direct effects of fasting may explain cases such as the apparent dissociation experienced by one of the Irish hunger strikers,<sup>2</sup> and the dramatic psychotic break suffered by a Cambodian hunger striker in Australia.<sup>71</sup>

While the above observations should alert the physician to the need to consider the question of competence throughout a hunger strike, they do not necessitate any fundamental changes in current orientations toward hunger strikers; indeed, the Malta declaration's instruction to interview hunger strikers on a daily basis provides ample guarantee that sudden and marked alterations in competence will be detected. Far more problematic, however, is the possibility that fasting may induce subtle changes in psychological functioning.

In addition to overtly psychotic symptoms, some obese patients undergoing "crash" dieting and "therapeutic" starvation manifest sudden personality changes involving hyperirritability and alarming levels of aggressivity.<sup>70,72,73</sup> Importantly, the same changes have been observed in experimental starvation of normal subjects, and are also repeatedly reported in accounts of starvation due to disaster or war.<sup>74-76</sup> Likewise, both aggressivity and anger attacks have recently been documented in association with anorexia nervosa.<sup>77,78</sup> In addition to barely containable hostile urges, some experimental starvation subjects also exhibited dramatic increases in a wide variety of other impulse related phenomena, including impulsive buying, kleptomania, binge eating, self mutilation, and suicidality (note that, with the exception of those who engaged in binge eating, force of will sufficed to keep experimental starvation subjects from eating despite increases in impulsivity).<sup>74</sup> Similar patterns of impulsive behaviour occur among underweight anorexics,<sup>79-82</sup> a finding which, on the face of it, is surprising given that this population is typically described as extremely self controlled.<sup>83-87</sup>

## DISCUSSION

A large corpus of research documents a link between hyperirritability, impulsive aggression, and reduced serotonergic activity; similar findings apply to all of the impulsive behaviours described above.<sup>88-92</sup> Significantly, animal models reveal a marked reduction in frontal cortex binding sites for serotonin transporters following food deprivation,<sup>93,94</sup> and underweight anorexics exhibit deficits in plasma tryptophan, urinary 5-HIAA, platelet serotonin binding, and basal cerebrospinal fluid 5-HIAA, deficiencies that are eliminated by weight restoration.<sup>95,96</sup> It thus appears that, via a reduction in serotonergic activity, fasting inherently increases levels of impulsivity in general, and impulsive aggression in particular. This pattern can be seen as usually adaptive, since, under conditions of naturally occurring food shortage, the individual is well served by (i) an increase in the preference for immediate

gratification and a decrease in concern with future events (immediate needs must be met or there will be no tomorrow); (ii) a decrease in the motivational salience of potential costs (cautious individuals will starve), and (iii) an increase in aggressivity towards potential competitors (meek individuals will lose out in the scramble for scarce food). This same pattern may, however, be markedly maladaptive under the evolutionarily novel condition of self imposed fasting. Consider the consequences of such changes for the hunger striker:

I. Hunger strikers typically begin their fasts in part out of anger at what they feel to be unjust treatment, political oppression, or similar outrages committed against them and/or their communities or constituencies.<sup>1</sup> Regardless of the extent to which a proverbial “reasonable person” would concur with the legitimacy of any given hunger striker’s complaints at the outset of his or her fast, if, as the evidence adduced above suggests, the act of fasting itself intensifies feelings of anger, then *the hunger striker’s motivation to fast as a way of striking out against oppressive institutions may increase as the fast progresses due not to an increase in oppression but rather to endogenous changes in anger reactivity.*

II. The WMA’s Declaration on Hunger Strikers instructs physicians to interview hunger strikers daily, and others have echoed this sentiment.<sup>1</sup> Presumably, one reason for such a technique is that, as the possibility of death becomes increasingly real, patients may wish to revise their initial assessments of the value of hunger striking—hypothetical harm contemplated at a distance is not the same thing as real harm staring one in the face, and many would agree that the “reasonable person” may frequently assign greater import to the latter than to the former. In contrast to such a pattern, however, if, as the evidence adduced above suggests, the act of fasting itself leads individuals to both discount the future and be relatively indifferent to harm, then *the hunger striker’s valuation of the potential costs of fasting may decrease as the fast progresses due not to any lesser affection for life but rather to endogenous changes which reduce the motivational salience of pain, injury, and death.*

III. To the extent that a proximate objective of hunger striking is to attract attention to the hunger striker’s cause, the technique is notably effective (at least in the West), and is likely to become even more so due to increases in globalisation, telecommunications connectivity, and dissemination of information via the internet and other media. Importantly, public attention to hunger strikers inevitably increases as a fast progresses. However, while a “reasonable person” might, as a hunger striker, choose to carefully weigh the value of such increasing publicity against the accelerating possibility of death, if, as the evidence adduced above suggests, the act of fasting increases the motivational salience of immediate benefits, then, *as the fast progresses, the hunger striker’s valuation of the potential benefits of fasting may increase more rapidly than the actual increase in benefits.*

In evaluating the importance of the above deductions, it is important to note that, holding aside (maladaptive) psychotic episodes, the psychological changes which can be viewed as normal (adaptive) consequences of dietary constriction in no way impair an individual’s competence as it is usually defined. Indeed, the Johannes Wier Foundation’s widely cited manual for physicians caring for hunger strikers notes that, up until a few hours before death, “the psyche remains clear ... there is no mental deterioration”.<sup>1</sup> The most rigorous contemporary definitions of competence stress the individual’s ability to receive, evaluate, and employ germane information in making decisions about the future.<sup>97</sup> Increases in aggressivity, impulsivity, and the salience of potential benefits, and decreases in the salience of potential costs, do not alter the individual’s *ability* to make competent assessments, although these changes almost certainly affect the *content* of such assess-

ments. More specifically, since it is arguable that emotions are an integral part of the valuation of alternatives central to the notion of competence,<sup>98–99</sup> increases in felt anger that do not interfere with the individual’s ability to comprehend the content and relevance of medical information can conceivably be viewed as acceptable recalibrations of the differential weighting of choices upon which competence itself rests.

The longer the hunger strike lasts, the starker the contrast becomes between, on the one hand, increasing levels of aggressivity, impulsivity, and anger, and, on the other hand, relatively constant levels of competence. With each successive day of fasting, the dangers of continuing the hunger strike rise. Although it is reasonable to narrow the boundaries of competency as the gravity of the decision facing a patient increases,<sup>100</sup> provided that neither psychotic breaks nor clouding of the sensorium occur, according to contemporary criteria for competence we must continue to judge hunger strikers as competent even as they become increasingly outraged at their oppressors, increasingly focused on their own successes, and increasingly indifferent to the possibility of their own deaths. Difficult as it may be for attending physicians who witness these changes, the competence of hunger strikers must be acknowledged, and hence their refusal of food must be honoured and supported.

The psychological changes induced by starvation dovetail with the social dynamics of hunger striking in such a fashion as to increase the likelihood that hunger strikers will carry their actions to the point of irreparable harm or death. It is unclear to what extent starving humans can rise above the subjective changes dictated by phylogenetically ancient mechanisms. However, given that conscious will can overcome one of the most elementary drives, namely the desire to eat, there is reason to hope that those patients capable of some degree of introspection will be able to take their own starvation induced psychological changes into consideration when deciding whether to maintain a hunger strike. Accordingly, *physicians have an ethical responsibility to include an account of the possible psychological changes that await when briefing hunger strikers on the likely consequences of their actions.* In discussing these issues with the patient it should be emphasised that, while we have all experienced psychological changes during transient states of hunger or fatigue, such changes pale beside the radical personality alterations that often accompany starvation. It may be helpful to point out that (a) starving individuals report the sensation that they are not in control of their actions, and (b) following refeeding, such individuals are frequently puzzled by their experiences and behaviours during food deprivation.<sup>67–74</sup> At each successive interview during the strike, patients should be reminded of the initial discussion concerning psychological changes. During these conversations, physicians may wish to ask hunger strikers to consider whether they are feeling angry, impulsive, or indifferent to the prospect of death above and beyond the responses elicited by their sociopolitical circumstances. Out of both respect for the patient’s autonomy and concern for preserving the doctor/patient relationship, care should be taken to provide information and opportunities for reflection in a manner which will not be construed as attempting to influence the patient’s decisions; informing the patient at the outset that the issue of psychological changes will be raised at future meetings may help to preclude misunderstandings in this regard.

#### AFTERWARD: BROADER APPLICATIONS

Viewed in the larger context of medicine, the number of hunger strikers is tiny, and, even with foreseeable growth in the practice, is likely to remain small. In contrast, rates of anorexia nervosa among Western teenage women may be as high as 51 per 100,000.<sup>101</sup> Accordingly, the likelihood that general practitioners and psychiatrists will encounter patients undergoing a form of “voluntary” starvation is non-trivial. By definition,

individuals suffering from anorexia nervosa exhibit disordered decision making abilities, as they pathologically refuse to maintain a normal body weight, thereby potentially impairing their health and welfare.<sup>102</sup> As a result, physicians treating anorexics arguably do not face the same issues as those dealing with hunger strikers, for the competence of an anorexic may be more readily called into question, particularly when grievous harm is imminent.<sup>103</sup> The lessons learned from the above discussion of hunger striking, however, may nevertheless be useful in caring for patients suffering from anorexia nervosa. Specifically, it is likely that, as starvation progresses, both the anorexic's resolve to avoid eating and her resistance toward therapeutic interventions will increase. Knowledge of starvation's influence on decision making may empower family members, helping them to both understand the patient's behaviour and select from among available treatment options.

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## LETTER.....

### Gender balance and sex equality

Without intervention, a small preponderance of female over male infants will be born, and female children will have a slightly higher chance of living to maturity. Thereafter, the female population will decline comparatively sharply in consequence of death in childbirth. Historical evidence indicates that throughout the recorded history of Britain, there was a relative scarcity of women, and men dominated social structures. This situation was only reversed in the early decades of the 20th century, a time when three generations of young men had gone, in succession, to be soldiers. These wars were largely fought abroad, and too few returned to provide husbands for all the available women.

It is no coincidence that this era also saw the real beginning of equality for women. Circumstances dictated that women undertake roles previously considered male, and events proved their ability to do so. The surplus women continued in working careers, perforce,

providing role models for those who came after. All the protests of the suffragettes were less effective than this brutal gender imbalance.

Dickens's assertion that the present scarcity of girls in India, due to sex selection before and after birth, will lead to a future increased social value for daughters, may be true.<sup>1</sup> This will in no way reverse the force of male dominance, however, since to have value as a wife and a mother is not necessarily to have value as a person. On the contrary, a shortage of wives and mothers will reduce opportunities for these future women to be anything else. Their chance of escaping the present lot of their mothers will be significantly less.

In the developed world, the birth rate is falling below replacement levels. A first male child is still preferred and a family of less than two children cannot be balanced. To this day, equality of the sexes has not been fully achieved. Dickens complains that prohibition of sex selection is ineffective, using demo-

graphic data from India to prove his point. Most countries prohibit murder, which would also appear to be ineffective. None the less, such law is regarded as a worthwhile statement of the limits of morally acceptable behaviour. He also says that prohibition of sex selection is unjust and oppressive, when used in a society such as Canada, where a survey suggests that sex preference for second born children is chiefly to have one child of each sex. Prohibiting sex selection even in these circumstances is a statement of what a society believes is a morally acceptable attitude towards parenthood, and as such, should not be regarded as unjust or oppressive.

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