After a series of jobs as teacher-cum-governess in 1896 Dorothy Richardson became the assistant and secretary to John Henry Badcock, a family friend, in his dental surgery at 140 Harley Street, in Marylebone. Her wage of £1 per week, quickly raised to £1.5s, was sufficient to cover living costs and grant a valuable degree of freedom.1 Twenty-three, single, and housed in Bloomsbury, Richardson lived, self-consciously, the life of a New Woman: intellectually, politically, religiously and sexually active. She experimented with Fabianism, Judaism, Quakerism, and Anarchism, had non-marital and same-sex relationships, and learned to ride a bicycle, pouring her diverse experience into the thirteen chapter-volumes of her novel Pilgrimage. There has been a critical tendency to see her employment as incidental amidst all of this adventuring. Emphasis is frequently, in accounts of Miriam as a New Woman, put on her status as secretary, and on her liminality between two classes, but the fact she is a dental secretary is rarely dwelt upon. Gloria Fromm’s four hundred-page biography gives dentistry only half a dozen pages and suggests that ‘[Badcock] was probably the most conventional person [Richardson] knew’.2 Like the dentist himself, dentistry is painted as dull, conventional, a means to an end.

It is not at all clear that Richardson felt this was the case. At least as valuable as her more obviously rebellious activities, dentistry gave Richardson material for a literary exploration of a young, independent woman’s distinctive experience in the workplace: the physical environment, the tools, the relationships, the expertise. Much of the richness of The Tunnel (1919) derives from its evocation of Richardson’s protagonist, Miriam Henderson, developing a professional persona, satisfaction from her expertise and industry, and varied relationships with her co-workers and employers. The specific requirements of paid employment—its routines, structures, settings and expertise—constitute a

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substantial point of interest for Richardson. *Pilgrimage* stands as one of the central modernist descriptions of work as something that structures and occupies the interior and exterior of the modern subject. Similarly, though Kristin Bluemel has identified a preoccupation with work as one of the frequent markers of what she terms ‘intermodernism’—a fluid category with which she hopes to fill in the gaps around modernism and its antagonists—this is Richardson the high modernist as employee.3

There is also a certain poetic aptness to Richardson’s employment: after working on the mouth, dentistry gave her a voice. After she had resigned from the Harley Street surgery in Spring 1908 she contributed numerous pieces to the *Dental Record*, which were published between 1912 and 1922. These columns, and the stand-alone articles, represent a consistent textual output at an important period in Richardson’s career as a writer, contemporaneous with the writing and publishing of the first six books of *Pilgrimage*. Richardson’s contributions were considered sufficiently important and accomplished that she was offered the editorship of the whole journal, which she refused, saying that ‘not even the dire shortage of men could induce her to take on anything so “specialist” in nature’.4 Nonetheless, the journal was not so specialist that she felt she couldn’t continue to contribute her regular column, deliberately framed as written by a non-specialist, ‘Comments by a Layman’; a series that ran monthly from November 1915 to June 1919. Richardson also wrote a number of freestanding articles, only some of which are signed, between 1912 and 1922. There is one further dentistry article in *Oral Hygiene*, and a republished article in both the *American Dental Journal* and *Dental Practice*.5,6

Like the other subjects she addressed in her non-fictional writings—including Quakerism, socialism, and film—we contend that this material mattered to her, and remains an important element of the oeuvre.

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4 Fromm, 86.
5 Dorothy Richardson, ‘Women in Dentistry’, *Oral Hygiene*, no. 1 (March 1911): 212.
While Kristin Bluemel has addressed the relationship of Richardson’s dental writings to Pilgrimage, Beci Carver’s book of 2014, Granular Modernism, offers a useful opportunity to develop this discussion in terms of the ways in which we read an author’s non-fiction alongside their fiction. Carver identifies miscellany as one of the recurring features of modernism, reading the work of Auden and Eliot, for example, as experiments in ‘incoherence’. The irreconcilable detail, the incongruous idea, she suggests, is connected to Robert Graves and Laura Riding’s 1927 Survey of Modernist Poetry, in which the movement is conceptualized as fragmentary. This sense of an accumulation of details, which ‘can’t be made to mean collectively’ is central to modernism in its earliest critical accounts. On a first reading, the disparate miscellany of topics that Richardson treats in her Dental Record columns seems to lend itself to a granular reading, in Carver’s terms. The description of Granular Modernism as ‘irrelevance, plotlessness, miscellaneousness, convolution, and confusion’ […] ‘the exhaustive description of experiences that do not appear to merit exhaustive description […] also a refusal to generate meaning out of detail’, could refer to the Dental Record columns and their associated articles, as it could refer to Pilgrimage itself. There are also echoes here of May Sinclair’s (approving) comment that, in the conventional sense, ‘nothing happens’ in Richardson’s novels, or Katherine Mansfield’s insistence that Richardson has ‘a passion for registering every single thing that happens’; ‘a pair of button boots, a night in Spring, some cycling knickers, some large, round biscuits’. There is ‘no plot’, Mansfield says, and there is a lack of selection and appraisal: ‘until these things are judged and each given his appointed place in the whole scheme, they have no meaning in the world of art’. The kinds of information Richardson selects for her Dental Record pieces are, similarly, so various as to give an impression of incoherence, a lack of selection, and an unaccountable focus on minutiae.

8 Carver, Granular Modernisms, 13.
9 Carver, 12.
10 Carver, 2.
12 Manfield, 141.
However, there are patterns to be traced between the columns, and parallels between them and Pilgrimage. Kristin Bluemel says of Pilgrimage that it can be read, as the Dental Record pieces can also be read, as the endorsement if not the achievement of ‘agglomeration’ as narrative design.13 The miscellany of the non-fiction could then, by extension, be read as a complementary collection of images and topics, alongside Pilgrimage’s own collection of the same. Bluemel posits: ‘The context, form, and function of her dental writings couldn’t be more different than the experimental “high art” of Pilgrimage, yet the foundation of many of the ideas she explores in her novel are firmly in place in these earlier pieces’.14 She goes on to argue that the columns’ creation of a ‘borderland’—an idea we will return to—allows Richardson to navigate the narrative tension between ending and indeterminacy. This is undoubtedly true, as we hope to demonstrate: Richardson’s novels frequently display anxiety about class, nationhood, science and health; and these preoccupations can be traced back to her early dental pieces. But these articles are not mere interpretative appendages to Pilgrimage, nor are they wholly disaggregated from that project. We propose, then, a modulation of two critical positions, balancing the relation of whole and part, unified and disparate, magnum opus and ephemera.

The most compelling reason for attending to the Dental Record pieces in their own right is that this material represents an unusual relationship between literature and science. Here we have an experimental literary author writing for a scientific audience, in a scientific journal, on scientific issues, while not herself a qualified member of that profession. Instead of disseminating scientific ideas via literary texts, say, or working as a scientist with a literary side line, Richardson creates a column and an identity using the Layman as an interested and knowledgeable other, communicating to the professional audience news that he—and the ‘Layman’ is, significantly, positioned as a male voice—thinks is interesting to that audience, but which those readers are unlikely to have encountered. These news items are always connected to dentistry, although sometimes only very marginally. As such the column addresses a range of topics, such as government policy in Switzerland, fad diets such as the Salisbury System and Fletcherism, and literature set in hospitals. The Layman’s role involves, then, a certain formulation of professional identity: by choosing what might interest the dentist readership, how to address them, and

13 Bluemel, Experimenting on the Borders of Modernism, 145.
14 Bluemel, 143.
speaking from half-in and half-out of the profession, Richardson has an active, constitutive role. In crafting a Layman persona from whom to speak she formulates, at the same time, an opposing community of professionals who share interests, priorities and even a broader sense of international fellowship. Knowing them well she tells them who she thinks they are.

For example, there are often humorous anecdotes, such as the Kaiser’s dentist being asked, when in the United States, whether his patron had ‘bitten off more than he could chew’ with the war.\(^\text{15}\) The implication here seems to be that the dentistry is a serious business, but not at all stuffy. And while nationalist sentiment is, of course, ubiquitous in a wartime journal, the frequent comparisons drawn with the provision of other countries is at once rivalrous and unifying: the German army has far more dentists than the British, sixty per cent of Russian dentists are women, American dentists are remarkably long-lived.\(^\text{16}\) These are points of national difference—further pointed up during wartime—but underpinned by a common praxis. Elsewhere she references Australian views on German culture, Belgian views on the English diet, as well as German books which she had herself translated to report findings on dietetics, to which we will return.\(^\text{17}\) The implicit message from the Layman is that to be a dentist is to possess an identity not limited to one’s immediate company of English-speakers.

Richardson negotiates national identity from another type of ambiguous position. Her Layman is not simply a cultural correspondent; not a retired or student dentist, nor a patient. But he does seem to share in a variety of roles in a delicate process of implicit positioning. The first column, from November 1915, is exemplary. Its first section addresses ‘The Domination of Pain’ and relays the discovery of various anaesthetic pressure points such as a nostril, a part of the tongue, or a toe joint that, when pressed, alleviates pain elsewhere in the body. A progenitor to the pseudoscience of reflexology, which would later focus on feet, this earlier system was

\(^{15}\) ‘Comments by a Layman’, Dental Record (August 1916): 428.
more global in its map of distal body parts; it had been very recently developed by two Americans, William H. Fitzgerald and Edwin F. Bowers, and was still largely unknown in 1915. Their book, *Zone Therapy*, was published in 1917 and the Layman draws his material from a promotional article by Bowers in the popular American periodical *Everybody’s Magazine*. Seen structurally, the Layman’s column is, from the start, situated between a limited and a universal audience: Richardson’s speaker is the conduit between dentists and ‘everybody’. The Layman is balanced between a scientific cutting edge and the more naively excitable world of health crazes; she would like him to appear both a well-informed correspondent bringing useful but non-dental research to her specialist audience, while not seeming a common or garden dupe of the latest craze marketed to the public. As Scott McCracken points out in his chapter on Richardson’s ‘Dietetics and Aesthetics’, the Layman is ‘not dogmatic’ in his criticisms of science but moderates the influence of that field by drawing on ‘radical ideas and the more pragmatic, statist tradition associated with Fabianism’.18

The possible sceptical response of her readership is an evident source of nervousness for Richardson. The first column draws implicitly on the privileged view of that most prominent of laymen in the world of dentistry: the patient. While the difference between a professional and a layman is a medical qualification, the principal difference between a dentist and a patient is altogether more urgent. Pain is the enemy of good practice for the dentist but is the evil itself for the patient: it is what drives people both to and away from the dental surgery. It is the problem, not a problem. The very fact that the column starts with the question of pain speaks, we suggest, of this priority. This eagerness does not, however, dampen a sceptical impulse that anticipates the dentist reader’s likely doubts. Richardson writes that the anaesthetic method:

consists of pressing the first joint of a toe. The bald statement of such a suggestion is apt to produce in the forthright English mind, with its inborn suspicion of anything that savours of charlatanism, a tendency to a wise blinking of an incredulous eye and the instinctive gravitation of the tongue towards the cheek.19

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If the Layman is credulous, he is not mindlessly so, and that gesture of collective good sense—we sensible English together—buttresses the Layman’s identity against any less discriminating outsider. The Layman may not be a dentist, then, but speaks from an ostensibly shared identity: apparently more important than professional training, the Englishman is constitutionally resistant to scams. In the lee of this gesture the Layman continues to reason his route to credulity.

As well as asserting a national identity to unite untrained and professional, the Layman trades in still broader cultural connotations. Thus, he states that the Eastern adept can exert exceptional power over his body’s actions, including slowing the heartbeat to a stop, and withdrawing sensation from individual parts of the body at will. Perhaps, he reasons, Bowers’s method will grant Western access to some of this ability. Especially striking is the comical description—‘an eye’, ‘the tongue’, ‘the cheek’—that stands at an ironic distance from the disbelief: it’s neither ‘my’ nor ‘your’ tongue but a universal, unowned body part. This gesture incorporates dentists and laymen both: all readers have these things, one assumes, and all are expected to respond in this way. The scepticism is evoked as an involuntary bodily reaction that, rhetorically, separates body parts from owners in a way that is not dissimilar to the anaesthetic phenomenon described. Just as the oriental body can partition itself, the English too seems to estrange its parts from their owners, albeit by a species of irony rather than mystical practice or squeezed joints. Not coincidentally for the context, this itemised, estranged idiom concludes in the mouth with the tongue, and the cheek. That reformulation is indicative: the mouth moves from the specialist domain of dentistry to the collective one, as shared as is the idiom—tongue in cheek—that shadows the line. Here a deconstructed expression becomes the space where smaller and larger identities come together.

This article stages a drama of stereotypes where the Eastern mind uses ancient wisdom to induce a desirable state, while ‘the Western mind, the active, scientific, engineering type of mind’ must ‘lay bare the mechanical laws’ in order to achieve the same end. This is all so much unremarkable orientalism. But more significant here is the explicit invocation of a cultural ‘borderland’. The immediate context in this very first instance of the column is not the colonial as such, but the professional. Richardson is, by using the cultural comparison, mapping out just such a ‘borderland’ for the Layman’s future columns: a place where the dentist can shed a little of his professional persona, and the Layman can talk shop to the dentist:
where the technical can meet with the cultural, the practical with the imaginative. While Richardson uses an imperial framework, therefore, the place where two cultures meet is equally a model for the column itself.

Kristin Bluemel has already written convincingly of the imperial logic of Richardson’s dentistry writings, addressing the rhetoric in a postcolonial framework, where ‘decaying teeth’ are read as ‘symbols of the general bodily condition of the English and by extension, the condition of the body politic’.20 In the column of February 1917, Richardson relates the dismay of a Belgian woman at British teeth and dietary habits, including an insatiable craving for stimulants such as sweets, tea, coffee and alcohol.

But the problem is not confined to oral health, carrying a knock-on cultural effect:

How long will it be before the mass of British people [...] cease to put the joint to scorch in the oven and the vegetables to wallop in the seething pot, and later, having fed on the results, go forth replete and unsatisfied to seek, not joy, not to dance or sing, but stimulants, to watch exciting games or exciting dancing, to read exciting trash, either in print or the more easily assimilable cinema film (81).

We are a few years prior to the explicit battle of the brows but nevertheless, this adds to the perennial laments for decline of aesthetic and, equally significant, attentional standards.

Equally, the Layman acts as a mediator between the public and the dentist, particularly in terms of the popular understanding of modern dentistry. In the subsection of her first ‘Comments by a Layman’, ‘The Eloquence of Facts’, Richardson writes,

One of the incidental consequences of the European war is the discovery of the dentist. Hitherto his significance in the general scheme of things has been known only to that small section of the public which has distinct views on personal hygiene and on aesthetics, a few enlightened M. O. H.’s [Medical Officers for Health] and publicists of various sorts. […] three far-reaching results have

been achieved. The first is that ‘dentistry’ has got into the press, even into the halfpenny press’.21

It is a morally questionable stance to weigh public understanding of dentistry against war, especially in the shadow of the previous month’s defeat at Loos, but the column does important work to position the non-professional speaker. The other against whom the Layman is pitted here is not in fact the dentist but the general public, so recently ignorant of and, one assumes, uninterested in dentistry. The Layman is, then, not a member of this public, being fully aware of dentistry himself, but not does he clearly belong to any of the outlying categories either. That is, he does not manifestly possess a distinct view of personal hygiene or aesthetics, nor is he an MOH or a publicist. And he is, by writing in a specialist journal, already moving within a discourse explicitly differentiated from ‘the press’ and ‘the halfpenny press’. Where the first part of this first ‘Layman’ column sets him slightly further from his dentist audience—his first thought is pain, he is a reader of Everybody’s Magazine—this third section brings him closer to his dentist audience. The idea that the public should be aware of dentistry is a shared priority—a benefit, as he says—but more commonly found among dentists than anywhere else. Without stating it as such, the Layman here seems to merge with his professional readership, sharing their view. This position is the most commonly adopted in the columns. The speaker seems, to all intents and purposes, to be playing a dentist, but one on a course of broad reading that sees him labelled as a Layman.

The policing of this no-man’s land is a repeated feature in Richardson’s dental writing. In an earlier article, Richardson reports a lively debate in Austria Hungary, which considers who ought to be able to practise as a dentist. Is it the fully qualified and accredited doctors, who may have no relevant experience and have often done no specialist training? Or is it the dental ‘mechanicians’, who have long been conducting dental surgery, fashioning dentures, plates, and crowns, but who have had no authorised medical training? This is partly an argument about class: the unusual term ‘mechanicians’ draws our attention to the closely related meanings of mechanic, referring to artisans, to manual labourers, and to the lower classes more broadly. But it is also about the categorisation of dentistry as a part of medicine or as specialist technological science. If dentistry can be practised not only legally, but expertly by an unqualified but

technologically accomplished layman, the exceptional identity of the
dentist themselves becomes devalued. A dentist becomes not a special
class of doctor but, in fact, an artisan layman with a highly particular set
of largely mechanical skills. The column also effects a complex proxy
discussion as British concerns about qualification are played out in the
ostensible discussion of other countries. It was only in 1921 that the
Dentists Act required that dentists must be licensed in order to practise in
Britain. With this in mind, then, we see that the rhetorical balance of the
Layman’s identity presses on a metaphorical sore spot in the field, where
the dentist is always in danger of becoming a subspecies of layman.

With this ongoing negotiation of the boundaries of the dentist’s identity
in mind, we can notice that the other recurring preoccupation of the
Layman columns is ‘enlarging […] the prospects of dentally qualified
women’ (688). Indeed, the column even goes so far as to suggest ‘It may
be that women will permanently take over, as they have done in Russia for
the last fifteen years, a large share of the profession of dentistry’ (688). If
the mechanician is presented—even misrepresented—as a foreign
problem, pulling at the frayed edge of the dentist’s identity in other
countries, the woman is the other actor in this drama. There was no legal
obstacle to women becoming dentists in this period: Lillian Lindsay had
become the first female dentist licenced in England in 1895. But there
remained a cultural barrier to equality, a norm whereby young women
were expected to be assistants or secretaries rather than dental surgeons.
Accordingly, we find, in December 1916, Richardson drawing attention to
the proposed creation of the new role of dental hygienist. This job is to be
accessed by a new qualification and, strikingly, is to be limited to women
only: a reserved profession that, inevitably, has a lower status than a
dentist, but is nonetheless a qualified practitioner rather than a general
assistant. The hygienist is to be a complementary position rather than a
spare pair of hands in the man’s surgery.

A few months later and we find that Richardson has opened an extended
argument about the opportunities for young women working as dental
secretary-assistants. A female secretary assistant writing in the voice of a
Layman, she takes issue with a comment in the magazine Pearson’s Weekly
lauding the exceptional opportunities granted to women with a career as a
dental assistant. These opportunities, Richardson counters, are not the
limitless bounty that Pearson’s presents them as. She writes in the column,
using the voice of a man, that while the work is varied and the conditions
pleasant, the dental secretary is a blind alley career that cannot be pursued
after early middle age. The situation is more complicated, then, than the patronising Pearson’s article implies. The views Richardson expresses here find fictional voice in Miriam’s anxieties regarding her own post as dental secretary. In The Tunnel Richardson writes, ‘Why did she want to stay? What future would it bring? Less than ever was there any chance of saving for old age. She could not go on forever being secretary to a dentist’; ‘a woman clerk never becomes a partner. There was no hope for women in business’.22 Crucially though the column is important not only as a precursor to the drama of the Tunnel, but because it allows Richardson to speak in the voice of a man, largely to other men, to highlight the limitations of existing roles for women. Balancing insider and outsider—one of the boys, but also a non-dentist—she is able to remind her readers that current standard practice and identities are neither ideal nor permanent, but subject to change and, ideally, reform.

Food reform is another important cultural borderland between the dentist and the well-informed public. Richardson read widely in nutritional science, including popular food reform pamphlets, and, in her Dental Record columns uses her scientific knowledge and personal experience to reflect upon the polemical arguments of pamphleteers and promoters. The increasingly complex science of food, as Richardson reads it, can never be entirely divorced from the everyday and the home, but is in its very nature both homely and scientific. Just as dentistry-as-science must take into account the patient and the patient’s lived experience, food science must combine its lab-based expertise with the life of the domestic kitchen. The same dietary issues surface in her columns again and again, diet proving a reliable confluence of professional and public interest in healthful living. One of these issues, perhaps because of its obvious and convenient link to dentistry and teeth, is chewing, or ‘mastication’. Richardson’s Layman connects bad teeth with bad habits and bad food:

the diseases of the teeth are largely due to mechanical interference with the normal functions of the jaws by means of artificial feeding, thumb-sucking (and kindred bad habits), the consumption of soft, sweet foods stimulating and developing the sucking parts of the mouth and the centre of the jaw and leaving the sides unexercised,

by the unwholesome affectation of the small mouthful which makes mastication almost impossible.23

This idea of the ‘affectation of the small mouthful’, a question of social manners, reads as a personal annoyance and is not repeated elsewhere in these columns (although it surfaces as a concern in Pilgrimage), but, tellingly, the invective against soft foods is.24 The column rails against soft puddings, overboiled vegetables and soft stewed meats (she calls this kind of diet ‘slop, slop, slop, milk puddings, porridge and milk, stewed fruit, tea, milk and water, all the old standing dishes’).25 These sloppy foods, which require the minimum of chewing, are contributing to bad teeth, particularly English bad teeth. Once again, therefore, dental matters are connected to broader, non-specialist issues of national identity, particularly pressing during wartime.

In one column she dedicates a whole subsection to ‘apples’, which as well as being good for mastication and working the jaw, are also, she says, ‘nature’s toothbrush’; and she ponders in another column if, because sending chocolate to the Tommies at the front is a bad thing, as it is bad for the teeth, perhaps sending toffee would be better. Toffee at least would take some chewing, instead of just melting (there also seems to be some debate as to what causes ‘dental caries’. Richardson is not at all convinced that these are caused by sugar). Toffee, she says, is ‘crunchable and soluble and without any of the clinging stickiness of chocolate’.26 Here, too, national identity in wartime is important, as is the health of the troops. There is also, crucially, a preoccupation with the practical: the small daily inconveniences of life in wartime and their small but effective remedies.

Elsewhere she directly invokes Horace Fletcher, the American food reformer, and his recommendation of the ‘maximum of mastication, i.e. mastication until there is nothing left to masticate’, as Richardson puts it, as a way of reducing the amount of food eaten.27 He claims that one’s body will naturally be satisfied with less if this procedure is followed, and

23 Dorothy Richardson, ‘Some Thoughts Suggested by the Austro-Hungarian Problem’, Dental Record (8 January 1914): 522.
24 See Pilgrimage vol. 3, 379-80 and our discussion of this passage later in this article.
25 ‘Comments by a Layman’, Dental Record (October 1916): 543.
26 ‘Comments by a Layman’, Dental Record (December 1915): 753.
27 ‘Comments by a Layman’, Dental Record (July 1916): 357.
Richardson accepts this as fact, and also accepts that most people do not need as much food as they consume. The Layman’s purpose here is, as with the reflexology example discussed above, to communicate popular or lay-ideas to scientists, or dentists, for the scientists then to evaluate their usefulness. It is clear, though, that Richardson accepts ‘Fletcherising’ as both scientifically useful and popularly applicable.

Horace Fletcher had a lot of followers and was popularly known as ‘The Great Masticator’. As Tim Armstrong points out in *Modernism, Technology and the Body*, Fletcher was ‘charismatic and influential’:

Fletcher, dressed in his clinically white suits, lectured messianically to business and popular audiences. His boosters included progressives like John D. Rockefeller and the economist Irving Fisher (with whom he founded the Health and Efficiency League of America), S. S. McClure (of *McClure’s Magazine*), and Bernarr Macfadden, publisher of *Physical Culture*. In England, Eustace Miles preached a similar doctrine in his journal *Healthward Ho!* Literary fans included Henry and William James, Upton Sinclair, who wrote books on fasting and diet, as well as his attack on the meat industry in *The Jungle*, and Conan Doyle; Arnold Bennett and H. G. Wells adopted Hornibrook’s related stomach-culture. Gertrude Stein’s brother, Leo, was a Fletcherizer, and she could use the terminology.\(^{28}\)

What is interesting about Armstrong’s list here is that it includes both popular health and fitness advocates and their publications, and literary figures who had a personal interest in scientific (or pseudoscientific) discoveries and their application to life. Cult figures like Fletcher then, belong to the public world of popular scientific interest rather than the rather more closed and more rigorous world of professional science.

In her signed June 1916 article ‘Amateur Evidence in Dietetics’, Richardson again deliberately addresses the cultural intersection between the public and the scientist by way of an article from ‘News and Notes’, which introduced ‘the first-hand evidence of mothers’ in adopting a dental diet for themselves and their children as ‘of actual scientific value’ in ascertaining how well dietary theories work in practice. In this piece Richardson is not so much mediator on behalf of the dentist or scientist

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as she is on behalf of the public. The ‘News and Notes’ piece that she examines poses a problem for her: the surveyed mothers claim that the diet laid out as good for the teeth is not necessarily good for a child’s digestion. Richardson pushes back against this: it is, she says, ‘of the first importance to examine very carefully the methods by which the mothers have reached their disappointing conclusions’. She concludes that the real problem is not that a diet of whole fruit and acidic vegetables are bad for digestion but that they have not been introduced into a conservative diet with enough care:

With regard to the mother who has made a wholesale experiment with the new ‘dental’ diet on her family and has relapsed in despair, it is more than likely either that the new dietary has been violently and enthusiastically and without gradation substituted for the old, that no allowance has been made for the delicate mental, moral and associational (to say nothing of the physical) adjustments that must take place before a child, born of parents who have suffered all the perversions of an artificial dietary and with its own system habitually vitiated can accommodate itself to a natural diet. It is more than likely either that this is the case or that the detailed constituents of the new dietary have been introduced peppered as it were, quite haphazard, over the surface of the old regime.29

This data is ‘useless’ as science.30 The children and the parents involved have lived on bad diets for so long that of course their systems will react to the sudden introduction of plentiful apples, whether they replace or add to their usual fare of ‘damp white bread plentifully smeared with butter (i.e., pure animal fat)’.31 Richardson advocates that the dental dietician follow the example of the food reformer by accompanying ‘diet sheets’ with ‘sound instructions as to the methods by which the desired substitution may be effected’.32 The Layman here moves from the public to the professional world, pointing out where the professionals have failed to disseminate scientific ideas effectively.

29 Dorothy Richardson, ‘Amateur Evidence in Dietetics’, Dental Record, June 1916, 302.
30 Richardson, 302.
31 Richardson, 302.
32 Richardson, 303.
A similar tirade, this time against the dangers of preaching scientific ideas as moral reform, appears in another of the Layman columns, under the subtitle ‘Horrors!’:

We sincerely pity the housewife who should chance to take up the current number of The Institutional Worker and read the leading article on ‘Easy Household Tests for Food Adulteration’. She will see her larder and store-cupboard, no matter how well-stocked, clean and orderly they may be, turned into temples of impurity under her eyes. This revelation might be all to the good if there were any remedy within her reach. As it is, she will probably fervently long, unless she is one of the few who can reduce alimentary impurities to the minimum by buying only the very best goods, to return to the blissful ignorance that was hers before she read.33

Here scientific knowledge is ‘cruel’ because it cannot be acted on; a quality not entirely mitigated by its being an ‘unconscious cruelty’ stemming from the writer’s blind privilege.34 There is no way the working class or lower middle-class housewife can afford to buy unadulterated, pure, and therefore more expensive food.

In both of these examples the scientist tries to make a positive change in the diet of ordinary people, but the preferred methods are insufficiently practical, thoughtful, or humane. There is a dissociation between the consumer of food—who is here made into a medical patient of sorts—and the ‘smooth easy-going generalizations of the theorist’.35 In both of these examples too, social class is a factor causing disconnection between consumer and food scientist. The reason why class becomes so important to these arguments about science and the ordinary person, we argue, is because in her scientific reading and thinking, Richardson is indebted particularly to the output of Charles Daniel’s anarchist press, C. W. Daniel, Ltd.

Richardson began her writing career with reviews for Daniel’s magazine Ye Crank, which was, at first publication in 1906, called Crank: An Unconventional Magazine. This publication was mainly political in scope but was supplemented by The Open Road and Healthy Life, the last of which

33 Richardson, ‘Comments by a Layman’, Dental Record (December 1916): 657.
34 Richardson, 657.
35 Richardson, ‘Amateur Evidence in Dietetics’, 302.
concerned itself with food reform. The *Healthy Life* magazine had a spin-off small book series (*Healthy Life Booklets*), for which Richardson translated three popular medical-cum-health books: Dr Paul Carton’s *Some Popular Foodstuffs Exposed* and *Consumption Doomed*, and Dr Gustav Kruger’s *Man’s Best Food*. This last book is the German book on diet mentioned earlier. All of these texts advocated a vegetarian diet for the prevention of and (more controversially) the cure of disease. Throughout ‘Comments by a Layman’, Richardson draws directly on books published by Charles Daniels’s anarchist press, particularly *Man’s Best Food*, which claims that the longer life expectancy of people in Hungary and Bulgaria is due to the prevalence of rye bread amongst the ‘peasantry’. Her interest in science then is always from the beginning of her writing life associated with her views on class, on land-ownership and on eccentric social experiments. This suggests that the articles for the *Dental Record*, and the ‘Comments by a Layman’ columns, are intrinsically important to the elements of Richardson’s life more easily classified as those of a ‘New Woman’, which critics have more often explored.36

Charles Daniel and Florence Daniel appear in *Pilgrimage* as George and Dora Taylor, and their appearance is held up as significant to Miriam’s development of her sense of self as a free woman, and as a political intellectual. She meets them at a meeting of the London Tolstoyans, and in a conversation with Hypo Wilson she tries to explain to him their appeal:

> ‘Well, suddenly you are in their kitchen. White walls and aluminium and a smell of fruit. Do you know the smell of root vegetables cooking slowly in a casserole?’
> ‘I’ll imagine it. Right. Where are the Taylors?’
> ‘You are all standing about. Happy and undisturbed. None of that feeling of darkness and strangeness and the need for a fresh beginning. Tranquillity. As if someone had gone away’.
> ‘The devil; exorcized, poor dear’.
> ‘No, but glorious. Making everyone move like a song. And talk. You are all, at once, bursting with talk. All over the flat, in and out of the rooms. George washing up all the time, wandering about

with a dish and a cloth, and Dora probably doing her hair in a dressing-gown, and cooking. It’s the only place where I can talk exhausted and starving’.

‘What do you talk about?’

‘Everything. We find ourselves sitting in the bathroom, engrossed—long speeches—they talk to each other, like strangers talking intimately on a bus. Then something boils over and we all drift back into the kitchen. Left to herself, Dora would go on for ever and sit down to a few walnuts at midnight’. (III 372–3)

Miriam needs to explain to Hypo the quality of the atmosphere that the Taylors create but, as usual, she can’t communicate anything so intangible to him. Instead she sets the scene (white walls and aluminium), the movement of the characters on that set (conversation in rooms not designed for that purpose, movement between rooms without constraint) and the careless disregard for formal clock-time (eating whenever the pot boils over). The ultimate effect is an evocation of a bohemian, intellectual and, crucially, vegetarian household. Food reform, dental science, and the political future are connected in an organic and integrated vision that reaches from the domestic detail to the intellectual talk of an intellectual life. Scientific talk here is a part of the domestic scene, and scientific ideas are applied to everyday life in a way that reconciles the intellectual distance between the two spheres.

This integration of diverse materials is not, moreover, the work of a unifying narrative view. Miriam connects all these ideas herself in a rumination a few pages on, where she is aware her attempt to explain the Taylors to Hypo Wilson has failed:

And all the time, all over the western world, life growing more monstrous. The human head growing bigger and bigger. A single scientific fact, threatening humanity. Hypo’s amused answer to the claims of the feminists. The idea of having infants scooped out early on, and artificially reared. Insane. Science rushing on, more and more clear and mechanical. . . ‘Life becomes more and more a series of surgical operations.’ How can men contemplate the increasing awfulness of life for women and yet wish it to go on? The awfulness they have created by swaddling women up; regarding them as instruments of pleasure. Liking their cooking. Stereotyping, in their fixed mechanical men’s way, a standard of deadly cooking that is destroying everybody, teeth first. And they call themselves creators. Knickers or gym skirts. A free stride from the hips, weight forward.
on toes pointing straight, like orientals. Squatting, like a savage, keeping the pelvis ventilated and elastic instead of sitting, knees politely together, stuffy and compressed and unventilated. All the rules of ladylike deportment ruin the pelvis. Ladies are awful. Deportment and a rigid overheated pelvis. In the kitchen they have to skin rabbit and disembowel fowls. Otherwise no keep. Polite small mouthfuls of squashy food and pyorrhoea. Good middle-aged church people always suggest stuffy bodies and pyorrhoea. Somewhere in the east people can be divorced for flatulence.

But the cranks are so uncultured; cut off from books and the past. Martyrs braving ridicule? The salt of the earth, making here and there a new world, unseen? Their children will not be cranks. . . . (III 379–80)

The ‘cranks’ here are the fictional Taylors, or non-fictional Daniels, labelled as they labelled themselves through the titles of their first magazines. They are perhaps the answer to the problems with society as currently constructed: a diet which ruins your teeth, a posture which damages your reproductive health, small mouthfuls which give you bad breath and fail to work your jaw. They are also perhaps the only answer to a scientific future – Hypo Wilson’s idea of a scientific future – which is terrifying in its impersonality. Here is orientalism once again, figured as an ideal lost in the rise of science-driven mechanisation. The uncultured cranks, by contrast, advocate walking ‘like orientals’ and ‘squatting, like a savage’. Western civilisation needs to reconsider the primitive and the popular, it is implied, in order to make progress. Here, also, is a miscellany which seems, as Carver would phrase it, granular but which is actually a series of ideas connected by association. Science, nutrition, posture, economics and domesticity, dress reform and dental health are all a part of the same discourse for Richardson: the discourse of the crank. Once that is understood in reading the Dental Record it can be understood in reading Pilgrimage, and vice versa. It is an example of what McCracken, in a discussion of Richardson’s poetry, calls her ‘aesthetic of everyday life, where the borderlines of art and the social, self and other, masculine and feminine are crossed and recrossed’.37 We would add to this list that Richardson crosses and recrosses the boundaries between science and domestic life, and between scientist and layman.

37 McCracken, 70.
In her preface to Paul Carton’s *Consumption Doomed*, one of the Healthy Life Booklets that she translated, Richardson comes to a conclusion about science and its role in the public world, and it is the same conclusion which she reaches, by various routes and to various degrees of completeness, in the *Dental Record* columns.

Medical ‘science’ has everything to gain in our recognition of her limitations. [...] The price paid for devotion to a set of facts torn from the context of reality is that we become in a measure their tool, we have grown to see all life through the narrow peep-hole of the specialist.38

As McCracken points out, this ‘critique of science’ owes much to her association with the Daniels and ‘locates her within the ragbag group of vegetarians, anti-vivisectionists, feminists, socialists, and sexual freethinkers’ of the early twentieth century left. For the purposes of our argument, though, we read this as an invested critique: a warning from the layman to the scientist with whom he has sympathies. In the *Dental Record* Richardson writes of science:

Humanity began to wait upon its words. [...] With the apotheosis of ‘science’, the popularising of a mechanistic neo-Darwinism, came the inevitably accompanying superstition of the Organised State. Humanity was to be run by trained experts; the Coming Race was to be produced under their supervision and regimented from birth to death’.39

In the quotation from *Consumption Doomed* Richardson’s argument is that specialism, particularly scientific specialism, is dangerous to a wider knowledge of the world. Scientists are fallible because they do not see facts in their context; they do not connect the isolated fact with ‘reality’. In the second quotation, science is dangerous because it claims a misleading authority. The distrust of science here (note that ‘science’ is in scare quotes) is partly a distrust of the ‘Organised State’, which comes from her involvement with the Fabian Society and with the Daniels and their press, and partly a distrust of eugenics, as with the fear articulated by Miriam in *Pilgrimage* that babies would henceforth be taken from the womb and

‘reared’ artificially (III 379). Scientists just can’t be trusted to run society. They can barely be trusted to communicate dietary and dental dietary advice sufficiently clearly, in large part because they have become too specialist. They need a mediator; an interested and sufficiently informed ‘Layman’.

Richardson’s Dental Record columns and associated articles, then, position themselves at the cultural and critical borderland of layman and scientist, public and professional, crank and sceptic. They also negotiate between the sensible but badly nourished ‘English’ and the rest of the world, and between poor and privileged voices. Richardson’s ‘Layman’ is a mediator, but a mediator whose intercessions are radical, unorthodox and sometimes disruptive. Reading the Dental Record pieces side by side with Pilgrimage, as we have attempted above, opens up new readings of the miscellany that is Richardson’s agglomerated fictional technique, but these non-fictional works are important in their own right, as an author’s engagement with science and with radical politics.