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# ***Human Relations'* invented traditions: Sociotechnical research and worker motivation at the interwar Rowntree Cocoa Works**

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## **Abstract**

What makes workers work better: social or financial incentives? This important management research question has a long and contested history, with most studies emphasizing the former. Almost all research into this question draws on the Hawthorne studies conducted by Elton Mayo and colleagues in the interwar United States, with the Hawthorne studies even playing a part in the foundation of the Tavistock Institute and its journal *Human Relations* in 1947. As this article reveals, the allegedly-unique nature of the Hawthorne studies is an invented tradition deeply embedded in the human relations field to this day. To explode this invented tradition, this article uses previously unstudied historical sources to recover and examine the long-forgotten *Incentives and Contentment* (1938) studies, conducted from 1929 onwards by sociologist Clarence Northcott at the Rowntree Cocoa Works in York, UK. In contrast to the Hawthorne studies, the Rowntree management research found that financial incentives were more important than social incentives. This article then charts how fashions in work incentives, the importance of personalities and networks, the relatively weak position of sociology in postwar Britain, and the prestige of American expertise, combined in 1947 to ensure the Tavistock's founders believed the Hawthorne studies were unique.

## **Keywords**

Hawthorne, human relations, management, pay, Rowntree, sociotechnical, Tavistock Institute

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## Introduction

The history of the Tavistock Institute, its members, and its research findings are receiving increased attention (e.g. Tavistock Institute, 2017; Trahair, 2015; White, 2015), particularly in light of the Tavistock Institute's and *Human Relations*' 70th anniversaries in 2017. Specific studies published in *Human Relations* (e.g. Coch and French, 1948; Lewin, 1947) have received recent historical treatments revisiting their personnel, formulation, meaning, and influence (e.g. Cummings et al., 2015; Desmond and Wilson, 2018; Edgerton, 2018: 548).<sup>1</sup>

The way in which early Tavistock Institute researchers thought about worker motivation was influenced by the Hawthorne studies conducted by Elton Mayo and colleagues at Western Electric's plant in Chicago. Conducted from 1924 to 1932 in conjunction with Harvard Business School, these studies appeared to demonstrate the importance of social incentives and management intervention (rather than pay) in employee motivation. They have been influential ever since, with growing importance in the United States and Europe after the Second World War.

The Hawthorne studies even featured in the very first edition of *Human Relations*, in which Lewin (1947) cited the most influential publication that emerged from the Hawthorne studies, Roethlisberger and Dickson's (1939) *Management and the Worker*. Roethlisberger and Dickson also explicitly influenced early members of the Tavistock in developing their concept of workplace sociotechnics, which focused on work incentives and social organization (e.g. Rice, 1953). One founder of the Tavistock Institute, Eric Trist, later remarked that the Hawthorne studies 'led to the rise of the human relations movement' in the United States, Britain, and elsewhere after the Second World War, with the foundation of the Tavistock Institute seen as part of the development of this new sociological and management discipline (Trist, 1973: 99).

## Historical origins, traditions, and inventions

This article argues that the central importance of the Hawthorne studies to the standard story of the historical foundation of the Tavistock in 1947 (and in the historiography of human relations more broadly) is what Hobsbawm (1983: 1) termed an 'invented tradition' (see also Edgerton, 2009; Kroeze and Keulen, 2013). As Hobsbawm described them, invented traditions 'appear or claim to be old [but] are often quite recent in origin and sometimes invented', emerging rapidly over a brief period. These include 'both "traditions" actually invented, constructed and formally instituted and those emerging in a less easily traceable manner within a brief and dateable period – a matter of a few years perhaps – and establishing themselves with great rapidity'.

The Tavistock tradition does not take account of the fact that the Hawthorne studies were not the only pioneering workplace studies of the interwar years. To coincide with ongoing explorations of the Tavistock's rich heritage, it is the perfect time to reflect on the forgotten *Incentives and Contentment* (1938) workplace experiments conducted by Clarence Northcott, Patricia Hall, and HW Locke, which took place at the Rowntree Cocoa Works at York, UK. In doing so, I aim to reveal a hidden history of sociotechnical research in Britain that predated the Tavistock, enriches the context of the Institute's foundation in

1947, and expands on why its founders drew on interwar American human relations studies rather than their near-contemporaneous British equivalent (see Dicks, 1970; Jacoby, 1985; Kaufman, 2008; Peters and Waterman, 1982; Trahair, 2015; Trist, 1973).

## Historical sources

Over the last several decades, the body of management research that uses historical studies to inform the future development of management research and practice has increased (e.g. Bucheli and Wadwani, 2014; Cummings et al., 2015, 2017; Godfrey et al., 2016; Hassard, 2012; Kipping and Üsdiken, 2014; Rowlinson et al., 2009, 2014; Rowlinson and Hassard, 1993). Some of these studies go into detail as regards historical sources (e.g. Hassard, 2012: 1436), and this section of this article continues this line of enquiry.

An examination of the sources obtained and deployed in the research for this article indicates the kinds of work required to recover a forgotten collection of people, events, and experiments from the dustbin of history.<sup>2</sup> Some sources are well-known for other subjects, whereas others never entered the historical record in the first place. A key challenge of this project was that many of the necessary primary sources have not survived in formats that are easy to access or even identify: since historical researchers have not been looking for them, they have not been read or cited, and have thus slid down the archival and storage priority list for over 70 years.

In addition to books, scholarly articles, and doctoral theses, there were three categories of primary sources. First, some sources, notably well-known scholarly journals (including *Human Relations*) that have since been digitized and so were easy to find. The same is true for the Yorkshire newsreels, placed online by the Yorkshire Film Archive (Yorkshire Film Archive, 1920, 1932). Second, some sources such as the *Bulletin of the Taylor Society* and the *Cocoa Works Magazine* have long held historical interest for specific scholarly groups, and so have been preserved, sorted, and catalogued; in this case in the FW Taylor archive at the Stevens Institute (Del Mar and Collons, 1976; Stevens Institute of Technology, 2018) and at the Rowntree archive in York, respectively (Borthwick Institute, 2018).<sup>3</sup>

The third category is sources whose publication titles were never properly indexed or subsequently digitized, such as *British Management Review*, *Industry Illustrated*, and *Labour Management* and its successors. These were located by triangulation from well archived primary sources, and then by searching relevant holdings at the London School of Economics and the Modern Records Centre, Warwick University.

Once the historical events had been recovered by consulting these sources, I consider that the most sensible approach to rebalancing the historical record is to reconstruct and recount the history of the *Incentives and Contentment* (1938) studies in chronological order, along with biographical details of the main players. I then review the contemporary scholarly reception of the Rowntree and Hawthorne studies, an exercise recently undertaken by Muldoon (2012, 2017) in relation to the latter, and compare and contrast the two. I conclude by examining how the allegedly unique nature of the Hawthorne studies was invented as a tradition from the later 1940s onwards, and further cemented by the creation of the Tavistock Institute in 1947.

## The interwar Cocoa Works and the Rowntree circle

Just as Hawthorne's historical context was important (Hassard, 2012), so too was Rowntree's. Interwar York was a medium-sized northern town in the English region of Yorkshire. Two industries dominated employment there: the railways and confectionery, with the principal confectionery employers being Rowntree's and Terry's.<sup>4</sup> Doubling in size across the interwar period, Rowntree's became internationally famous across the period for their deep Quaker convictions, innovative products, progressive employment practices, and their involvement in scientific, management, and financial research.<sup>5</sup> The Rowntree family were well connected in liberal political circles, with contemporary business practitioners, the media, and prominent public figures (including two future kings) keen to visit the Works (see Clarke, 1923; *The Yorkshire Herald*, 1923; Yorkshire Film Archive, 1920). In 1924, the Managing Director of the Taylor Society, Harlow Person, visited the plant and described it as 'one of the best examples of advanced management in England' (Person, 1924: 199). Moreover, Rowntree's produced a documentary about its manufacturing methods (Yorkshire Film Archive, 1932), and the plant featured in national media. On 11 November 1932, the BBC broadcasted an interview with Madge Munro, a young Rowntree's packing girl, which received an estimated two million listeners (*Cocoa Works Magazine*, 1932).

Specific Rowntree personnel were also internationally recognized and respected. The best known, both then and now, was the Works' chairman from 1923, B Seebohm Rowntree (1871–1954) (hereafter 'Seebohm'). Seebohm, a former student of chemistry, remains famous for his sociological research into poverty, his firm's paternalistic employment practices, and his influence on the postwar British welfare state (Briggs, 1961; Rowntree, 1901, 1941, 1951; Rowntree Society, 2016; Webb, 2009, 2018).<sup>6</sup>

Using his experience in business and government (Rowntree, 1918), Seebohm published a book, *The Human Factor in Business* (Rowntree, 1921), which, like Henry Dennison's (1931) *Organization Engineering*, predated Elton Mayo's book-length writings on the importance of recognizing the individuality and humanity of employees (Bruce, 2006). Rowntree (1921) was reprinted numerous times in the interwar period and became one of the best-known volumes published by an interwar British business intellectual (see Rowntree, 1938).

Seebohm opened *The Human Factor in Business* by reminding readers that 'in pre-war days Labour Unrest was one of the most serious problems confronting the country', and 'it must be admitted that the situation is darker than it was before the war' (Rowntree, 1921: 1). He remarked that soldiers returning from the war had been disappointed by unmet government promises, and many workers were now calling for the abandonment of the 'capitalistic system' (Rowntree, 1921: vii). He argued that labour unrest went deeper than disputing specific wage rates, and had become more about workplace control. He summarized the scenario as he saw it: 'The whole basis of industry is challenged' (Rowntree, 1921: 3).

Despite the democratic tone of Seebohm's publications, and his explicit calls for industrial democracy, it should be remembered that Seebohm was not advocating workers' control (Child, 1964). A committed Quaker, Seebohm was horrified by the devastation of war and the revolution in Russia, but accepted that labour's increased bargaining

power meant that new negotiation structures and powers had become necessary. Moreover, he placed a higher standard of living top on his list of workers' reasonable demands. This context, plus Seebohm's scientific background, is important in understanding why the Rowntree firm injected so much time and energy into its research.

Seebohm was instrumental in founding and later running the privately-operated National Institute of Industrial Psychology (NIIP) from 1921, which conducted hundreds of psychological investigations into the interwar industrial workplace (Bunn, 2001; Collett, 2016; Doyle, 1979; Hollway, 1993). He also established the Oxford Management Conferences from 1921, a series of events that gathered together works directors, managers, foremen, and forewomen to discuss a wide variety of industrial and management issues (Booth et al., 2018). Seebohm later expanded these events into the larger Management Research Groups (MRG), organized by Rowntree's employee Lyndall Urwick, and in which another employee, Clarence Northcott, focused on labour issues (Brech et al., 2010). Northcott and Urwick would, in perhaps unexpected ways, go on to play an important part in the development of the 'tradition' of the Hawthorne studies' pre-eminence.

A key figure in the Rowntree circle, Lyndall Urwick (1891–1983), has received increasing attention from management historians (Brech et al., 2010).<sup>7</sup> Having studied history at Oxford and served in the Army in the First World War, Urwick was recruited to Rowntree's when he was heard delivering a paper on 'Management as a Science' at one of Rowntree's Oxford conferences in 1921. A particular enthusiast for the writings of FW Taylor (e.g. Taylor, 1903, 1911), and a prominent member of the Taylor Society, Urwick began his management investigations and publishing career at Rowntree, publishing a book on factory organization with his Rowntree colleagues (Northcott et al., 1928).

Urwick left Rowntree in 1928 under a cloud, moving to Geneva to become Director of the International Management Institute (Urwick, 1928). Here he started publishing books, including the research of the Hawthorne group, which he would later expand and propagate in the UK and Europe (International Management Institute, 1931; Nyland et al., 2014; Wrege et al., 1987). As examined below, he also became a historian of management, framing the agenda for other management historians for seven decades (Brech, 2002; Brech et al., 2010; Child, 2011; Weatherburn, 2014).

A third, lesser-known Rowntree figure was important to this story. Clarence Hunter Northcott (1880–1968) was Rowntree's Labour Manager for over two decades, and was an interesting though largely forgotten figure in the historical development of management research and the human resources profession. His background was in some respects similar to Mayo's: both were Australian, taught in the Workers' Educational Association, travelled to the US, and spent the most significant parts of their careers in factories (Bourke, 2000; Trahair, 2005; Trahair and Bruce, 2013). Northcott, a dedicated Methodist, completed a doctorate in sociology at Columbia University supervised by the well-known sociologist and former president of the American Sociological Association, Franklin Giddings (Bourke, 2000; Northcott, 1918a). Northcott's thesis was published as *Australian Social Development*, an examination of the Australian social character and the place of efficiency within it (Northcott, 1918b; Bourke, 1981, 2000). Following the Russian revolution, Northcott, like Mayo (see Bruce and Nyland, 2011; Nyland and Bruce, 2012) and

Seebohm Rowntree, published research on British unemployment (Northcott, 1921), and industrial psychology as a method of diffusing 'violent revolt, as in strikes, I.W.W.-ism [Industrial Workers of the World], or Bolshevism' (Northcott, 1920a, 1920b).

Seebohm recruited Northcott from the National Industrial Conference Board to be Head of Wages at the Cocoa Works, where he then held the position of Labour Manager from 1924 to 1946. He was also appointed Chairman of the Labour Section of the MRG. Northcott was the main player in the reframing of the Institute of Welfare Workers into the Institute of Labour Management (ILM) in 1931, which symbolized the profession's reconfiguration into one that was directed from the boardroom rather than the factory floor (Niven, 1978: 83–85). Northcott was also president of the ILM's successor organization, the Institute of Personnel Management (IPM), from 1941 to 1943, which exists today in updated form as the Chartered Institute of Personnel & Development (Bourke, 2000; Child, 2011; CIPD, 2018).

## Research at the Rowntree Cocoa Works

The Works was known so well for its management research that Urwick later described how 'the Cocoa Works at York was the finest practical university of management to be found anywhere in the world' (Urwick, 1962: 43). Indeed, the *Incentives and Contentment* (1938) studies followed a long line of experiments since Seebohm became increasingly involved in the firm, examining negotiation machinery, production methods, office layout, products, advertising, and forecasting (Northcott et al., 1928; Urwick et al., 1928; Wallace, 1928).

To address the related issues of worker pay, consumer demand, and political instability, much early Rowntree research focused on pay incentives for factory and office workers.<sup>8</sup> Moreover, the Rowntree Cocoa Works was the first factory in Britain to employ an internal industrial psychologist, Victor Moorrees, who had a PhD in psychology, and the firm established a Psychology Department in 1922 (Hall and Locke, 1938; Hollway, 1993). The staff of three psychologists and five assistants used their knowledge to implement vocational selection and conduct time and motion studies (Rowntree, 1923).<sup>9</sup>

In addition to pay incentives and worker psychology, a focus in certain interwar British and American factories, including at both Rowntree and Hawthorne, was the organization of work on the factory floor (Edgerton, 2018). A major management intervention in this field was in the detailed timing, measurement, and costing of production processes, and the distillation of different kinds of manual work into common denominator units: a process known as 'labour measurement' or 'work measurement'.<sup>10</sup> As at Hawthorne, which used a group incentive work measurement system known as the 'Bogey' system (Roethlisberger and Dickson, 1939: 12–14), Rowntree implemented a work measurement unit system, named the 'Mark', from 1923 onwards (Northcott, 1932; Weatherburn, 2014: 113–145).

## The *Incentives and Contentment* studies

Scholars of both Rowntree's and human relations imply that Rowntree management research stopped innovating in the mid-1920s, remaining focused on pay incentives, worker psychology, and work measurement. Indeed, since the later 1940s it has become



widely believed that the principal pioneering innovation in the Hawthorne studies was in its deployment of social scientists interested in group-relations issues, rather than older and narrower questions related to individual psychology or time studies. For example, Trist (1973: 99) argued that the Hawthorne studies were distinctive as they were ‘the first extensive studies made in industry by social scientists, as distinct from psychologists concerned with more limited psycho-physical problems’. The Hawthorne studies did start earlier and were more extensive than those at Rowntree, but unbeknownst to Trist, the Rowntree studies, although they differed in their research scope, findings, and influence, were also directed by a sociologist, Clarence Northcott.

In fact, Rowntree’s research into pay incentives, worker psychology, and work measurement was followed by incentive experiments conducted from 1929 to approximately 1933, later published in book format as *Incentives and Contentment* (1938). Examining the sources uncovered as part of this research, what can we learn about the similarities and differences between the Rowntree and Hawthorne studies, and, most importantly, their findings on motives and incentives to work? First, its authors were important in their context: Northcott supervised the experiments, Patricia Hall of the Rowntree Psychological Department made the actual investigation in the workrooms, and HW Locke was head of the Rowntree Education Section. Locke had for some time propounded the importance of formalized factory floor supervisors with qualifications (Locke, 1929). Next, the Rowntree studies were shorter in length than the Hawthorne studies; the Hawthorne studies lasted from 1924 to 1932 (Roethlisberger and Dickson, 1939), and the Rowntree studies from 1929 up to around 1933 (see Hall and Locke, 1938).

As regards interviews, the Hawthorne works had around 30,000 employees and the Cocoa Works a third of this, so whereas 20,000 Hawthorne interviews were conducted, only 1300 were conducted at Rowntree’s. Of these, 1000 interviews were with women and 300 with men (Hall and Locke, 1938: 52). As regards the style of the Rowntree interviews, Moorrees and Northcott recorded retrospectively that they were similar to the Hawthorne interviews, but instead of conducting set questions as at Hawthorne, the investigator ‘simply works with the workers to try to find out what recommendations could be made as regards room conditions or methods of notifying how much work has been done at regular intervals’ (Moorrees and Northcott, 1933: 166).

Although imprecise on details, and offering considerably less data than the Hawthorne published output, *Incentives and Contentment* (1938: 41) reported that ‘a large number of experiments of greater or lesser importance were made in different sections of the factory’, including one set of experiments that involved control and experimental groups. *Incentives and Contentment* reported comedic results when experimental conditions were accidentally disturbed: ‘The control group soon “got wind” of the object of the other, and its keenness on its own work quickened insensibly, till the two teams were practically racing each other in keen emulation!’ (Hall and Locke, 1938: 40–41). The studies also placed an emphasis on examining the effects of mechanization: ‘Hand work seemed to cause less boredom and less tension than machine work; on the other hand, interest in the financial return from work was found to increase noticeably among machine operators’ (Hall and Locke, 1938: 70).

As regards work group organization, citing Mayo (1933), *Incentives and Contentment* noted that in contrast to the large working unit, where workers felt alienated from their work, small working units fostered a sense of group loyalty and more productive teams

(Hall and Locke, 1938: 82). *Incentives and Contentment* concluded that, in contrast to the Hawthorne studies, group interactions and morale were important, though ‘undoubtedly the incentive which has the most widespread influence over men and women is the financial one, but it is a grave mistake to undervalue the importance of the others’ (Hall and Locke, 1938: 106; see also Northcott, 1937). These findings contrasted sharply with those simultaneously published by Hawthorne researcher T North Whitehead in scholarly journals in both the United States and Great Britain, which concluded that social group incentives trump financial incentives (e.g. Whitehead, 1934, 1935, 1936, 1938).

## Contemporary comparisons between the Rowntree and Hawthorne studies

Just as Muldoon (2012, 2017) has studied the scholarly reception of the Hawthorne studies, it is worthwhile making a start on the same aspect of the Rowntree studies. A significant British discussion of the Hawthorne and Rowntree experiments emerged at the 38th Oxford Management Conference in spring 1938, the year *Incentives and Contentment* (1938) was published. Managers and academics at the event were familiar with the details of both sets of publications and experiments. Discussing the issue of work incentives, EM Hugh-Jones of Keble College, Oxford, remarked on the ‘group mind, when you get a number of people working together in a factory or on a job’ (Munro, 1938: 13). He then asked whether the keynote speaker, Sir David Munro of the Industrial Health Research Board, was familiar with the results of the experiments by ‘Whitehead and Mayo conducted in the Western Electric Co.’s plant in America some years back’ (Munro, 1938: 13–14). Hugh-Jones continued: ‘The impression I got from reading about them was to show that wages were a much weaker determinant of output than was the constitution of this group mind, that internal strains and stresses in the group had an enormous effect – perhaps a greater effect on output, that wage incentives could not always overcome’ (Munro, 1938: 13–14). Munro responded that he had spoken with Mayo when he was in Britain the previous year, adding that, despite Mayo’s extensive experiments with wage incentive programmes, ‘Mr Hugh-Jones is quite right – he [Mayo] found that the strongest of all was that the girls had made friends with one another’ (Munro, 1938: 14).

Northcott responded that Rowntree’s had been conducting similar experiments without knowledge of the Hawthorne studies, ‘the results of which we have found of great interest and importance’ (Munro, 1938: 17). After discussing how workers were approached to participate in the Cocoa Works experiments, Northcott remarked that the Rowntree investigation had been published as a book, *Incentives and Contentment* (1938), in which ‘we have kept to this promised anonymity by making the statements very general’ (Munro, 1938: 17).

The results of the Rowntree experiments were also discussed in some scholarly publications although, as Northcott outlined at the Oxford conference, the findings were anonymized in a way the Hawthorne studies were not. Another factor was that *Incentives and Contentment* (1938) contained very little experimental data, particularly in comparison to the large quantities of data presented in *Management and the Worker* (1939). These features of the Rowntree studies helped to ensure the historiographical exclusivity of the Hawthorne studies for seven decades.



The ILM's secretary, Olive Spicer, compared the two studies in a review in the institute's journal *Labour Management*, critiquing the 'unguided interviews' used in the Rowntree studies, fearing that select confidential interviews may imply favouritism (Spicer, 1938). Reviews were also obtained in the United States, with one US reviewer of *Incentives and Contentment*, BB Gardner (1940), speculating that the Rowntree researchers may have been influenced by the Hawthorne studies but noted that the lack of comparable data from the Rowntree studies meant that the reader could not tell if the conclusions were accurate.

Likewise comparing both sets of experiments, the Birmingham economist P Sargent Florence (1939a, 1939b) highlighted the Rowntree Works' well-known focus on workplace experiments, and noted the similarity of the Rowntree work incentive studies with those at Hawthorne. In his comparison, he focused on similarities in interview methods and did not assign significance to their differing findings about pay incentives.

Also in 1939, Hyacinthe Dubreuil, a doyen of the Taylor Society and later Vichy collaborator, published Dubreuil (1939), containing a foreword by Aldous Huxley, the British author of *Brave New World* (Huxley, 1932). The introduction noted that:

recent investigations of a genuinely scientific character in industry itself, both in the United States and in England have tended to focus attention upon the importance of the small group as a working unit. With the Hawthorne and York experiments, which related to groups of female wage-earners, it is interesting to juxtapose and compare Dubreuil's observations on his relatively 'liberated' groups of men-folk. (Dubreuil, 1939: xv)

Scholarly reviews such as these compared and contrasted the published Rowntree and Hawthorne studies, and, despite praising both sets of studies in general terms, found the Rowntree studies lacking in two main ways: first, the Rowntree use of unstructured interviews, and, second, in the type of research data reported and its presentation style. These factors, combined with Northcott's wartime career trajectory, and British wartime developments more broadly, merged during and after the Second World War, ensuring that the Hawthorne studies alone would enter the foundational story of the Tavistock Institute and *Human Relations* from 1947 onwards.

## **The recasting of the labour management profession in the Second World War**

The Second World War was important to this story. While the nascent Tavistock founders were employed in the military, specifically the War Office Selection Boards (White, 2015), the personnel management circle originating in Rowntree's Cocoa Works, including Northcott, stayed in private industry or were reassigned to the much-expanded nationalized industries (Weatherburn, 2014: 162–206).<sup>11</sup> Specifically, Northcott of Rowntree's and other senior labour managers from progressive private firms such as Cadbury, Littlewoods, and Imperial Chemicals Industries (ICI) were transferred to nationalized industries or to government posts such as at the Ministry of Labour or the Ministry of Supply's Royal Ordnance Factories (Hay, 1949; Inman, 1957; Tiratsoo and Tomlinson, 1993).

Labour management took on an entirely new tenor and scale, which it had drawn from progressive employers such as Rowntree's and ICI. With the backing of the Minister of Labour, Ernest Bevin, and his Ministry's Factory and Welfare Department, as well as John Wardlaw-Milne's Select Committee on National Expenditure, the number of labour managers in the UK increased from 1800 in 1939 to 5700 in 1943, with the majority of these new managers being employed in war production (Moxon, 1948; Parker, 1957: 420–421). Moreover, under Northcott's presidency (1941–1943), the ILM expanded considerably in terms of membership and staffing (Niven, 1978).

What did these new personnel managers do? In contrast to a long-standing stereotype of welfarism, Evans (2003) has found that they were not there to simply provide welfare services or to improve morale. A semi-official study of wartime personnel management was quite clear that the welfare principles of the post-Great War years had been replaced by a concept of personnel management that was 'wider in scope, more technical in application than the old welfare concept' (Moxon, 1948: 4). The new technical managers were useful for introducing training programmes as well as coordinating with regional manpower and production boards, and contributing to Joint Production Committee negotiations (Croucher, 1982; Hinton, 1994).

This approach was seen to have been a success. Writing after the war, Moxon (1948: 17–18) remarked that 'the special circumstances of war have brought about a greater emphasis on training within industry than ever before in British history'. Moxon also noted the importance of the combined work of personnel managers, motion study representatives, supervisors, and personnel officers in job analysis. Instructors noted for their ability to teach were trained in the best production methods and then passed on their experience to new recruits, promotion recipients, and transferees (Moxon, 1948: 17–18).<sup>12</sup>

In addition to transforming the personnel management profession, in which Northcott had been an important player for many years, the impact of the war on Northcott personally was crucial to this story. Northcott spent the war developing his ideas on personnel management and industrial psychology, advising the government, and propagating their use in wartime industry, just as he had done in York in the 1920s and 1930s (see Northcott, 1942; Northcott and Macdonald, 1941; Parrish, 1943). Importantly, however, his reading of Roethlisberger and Dickson (1939) transformed his thinking about his prior research. The book held him spellbound. This was unusual for a sociologist, as sociologists were among the Hawthorne studies' strongest critics (Muldoon, 2017). In his review of Roethlisberger and Dickson (1939), Northcott was impressed by the book's 200 pages of quantitative sociological analysis, which, unlike many later scholars, he appears to have studied with little or no scepticism. Moreover:

This book has made a profound impression on my mind. I realise as never before how little even a personnel manager knows of the factors which influence happiness and efficiency within the workroom . . . *Management and the Worker* is a book to be bought and used as a guide and a reference book in matters of policy. (Northcott, 1943)

After retiring from Rowntree's, Northcott published extensively on industrial management and business ethics (Northcott, 1945, 1958), and sat on the Minister of Education's Education for Management committee chaired by his former colleague Urwick (Bryan,

2009). Northcott finished his career at the IPM as its director from 1949 to 1950 (Niven, 1978: 166–168), the period in which *Incentives and Contentment* (1938) disappeared from view.

## The eclipse of the Rowntree studies in Britain by the Hawthorne studies

As previously discussed, one of the Tavistock's founders, Eric Trist believed that the Hawthorne studies were the founding site of the discipline of human relations, and that their historic influence in the United States, Britain, and elsewhere was not just distinctive but unique (Trist, 1973).

This article aims to supplement this observation by exploring how, as this tradition became invented in the immediate postwar years, the Rowntree studies became eclipsed. The main question is that if the Rowntree studies were in some ways qualitatively superior to the Hawthorne studies, albeit only in hindsight, why then did the Hawthorne results find themselves so promoted and analysed, whereas the Rowntree studies were quickly forgotten? The answer lies in evaluating what makes historical influence happen.<sup>13</sup>

Examining the evidence, there appear to have been five reasons why *Incentives and Contentment* (1938) did not reappear in the postwar period, each of which would also ensure that the Hawthorne studies received much support and promotion.

### 1. Postwar British debate on work incentives and pay

The Rowntree studies' findings that workers were most motivated by pay were far from useful in a country that had been almost bankrupted by six years of war but also in which, by the 1950s, workers were relatively prosperous. Full employment, price controls, and the 'affluent worker question' of the postwar generation continued to downplay the importance of employee pay as a key work motivator (Lawrence, 2013). Moreover, echoing observations by Rowntree, Northcott, and Mayo after the First World War, many commentators hoped that the Hawthorne findings could bring industrial peace in place of the strife and strikes over pay that the wartime experience had brought on both sides of the Atlantic (Chase, 1946; Drucker, 1946).

In addition, labour productivity was an important issue for postwar Britain, and new British analysis emerged that agreed with the Hawthorne studies' conclusions that pay incentives were less important than social factors such as group coherence (e.g. Shaw, 1946). As Urwick put it in 1944, 'We must temper and modify our present excessive reliance on material and economic incentives' (Urwick, 1944: 69). He later reinforced his argument that 'the financial incentive has been badly overworked' (Urwick, 1949: 14). Urwick also dovetailed the Hawthorne studies into this conclusion, arguing that 'instances in which the so-called economic motive has proved itself to be largely a fiction', and instead emphasized the importance of social incentives (Urwick and Brech, 1949: 58, 205). Related commentators, such as Florence (1947), who had previously been open to considering the debate from both sides, now agreed that social incentives were more important than financial ones.

## 2. Personalities

The nonconformist belief in modesty and caution, coming both from Northcott, a Methodist, and the Quaker Rowntree firm more generally was important (for comments on Rowntree modesty, see Urwick, 1962). For example, when he died in 1968 Northcott left behind no archive of personal papers. This is in striking contrast to authors like Urwick who, presumably desirous of being remembered, did (see Brech et al., 2010).

Moreover, during the war Northcott's position had also shifted away from his own study, regardless of its merits, and towards the published Hawthorne findings, particularly Roethlisberger and Dickson (1939) (Northcott, 1943, 1945). As Northcott put it, as a result of this 'magnificent work', British management thinkers, including himself, could now understand the importance of seeing social relations in groups as the key factor in work motivation (Northcott, 1944: 117).

Northcott's change in attitude meant that the experiments published in *Incentives and Contentment* (1938) could not rely on their own director to propagate their results in postwar Britain.<sup>14</sup> Unlike Roethlisberger and Dickson (1939), which was reprinted nine times between 1939 and 1949 alone (Roethlisberger and Dickson, 1949), *Incentives and Contentment* (1938) was never reprinted after its initial publication.

In contrast to Northcott's modest approach, Urwick's professional and intellectual position, and his public profile, had been much-strengthened by the war and he consolidated his position in a number of ways. For example, his industrial consultancy Urwick, Orr & Partners, founded in 1934, emerged from the war as the second largest such firm in Britain (Kipping, 1997; McKenna, 2006; Weatherburn, 2014).

As well as being a management practitioner and author, Urwick was, like Mayo (Mayo, 1945; Smith, 1998; Trahair, 2005; Trahair and Bruce, 2013), a superb networker and promoter. In this respect, he has been described by one scholar as an 'astonishingly energetic propagandist' (Roper, 1999: 42) and by one industrial activist as the 'rhapsodic historian of the scientific management movement' (Braverman, 1974: 68). It is therefore somewhat ironic, but surely not coincidental, that one of the reasons the Rowntree studies were eclipsed by the Hawthorne studies was because another of the Rowntree circle, Urwick himself, promoted Mayo and the Hawthorne studies in Britain and Europe very successfully from 1931 until well after Mayo's death in 1949 (International Management Institute, 1931; Urwick, 1949, 1960; Urwick and Brech, 1949). And while Urwick included his former Works colleague Seebohm Rowntree, along with Mayo, in his prosopography of management thinkers (Urwick, 1963), Northcott did not feature.

## 3. Networks

As with so many scholarly endeavours, personality, personal networks, and positioning were important. While the Hawthorne studies were closely connected to the well-networked Harvard Business School, the Rowntree firm had no similar connections except to the later university at York, which had no business school (Bruce and Nyland, 2011; Gillespie, 1991; O'Connor, 1999; Webb, 2009, 2018). This also meant that, unlike Mayo, Northcott had no students to whom he could pass the baton and who could carry on similar work later in the postwar period (Homans, 1962; Muldoon, 2017).

#### 4. Sociology in postwar Britain

*Incentives and Contentment* (1938) fell on stony ground from a scholarly sociological perspective. Notwithstanding the Tavistock's creation in 1947, the focus of which was largely industrial, postwar British academic sociology was in a considerably weaker position than its American equivalent, even taking into account the relative size of each country (Calhoun, 2007; Muldoon, 2017; Steinmetz, 2005, 2007). As a former student of Mayo's, George Homans, put it when he embarked on sociological studies in postwar Cambridge:

It feels clear to me that sociology has a bad name in Britain but just what sort of bad name and why is not so obvious. At least my friends in Cambridge are apt to say to me: 'You used to be a historian. What did you get into *that* [sociology] for?' (Homans, 1962: 113)

In addition, the intellectual apparatus of British sociology was less developed than in the USA, with less emphasis on the development of theory, and more focus on social surveys such as those that Seebom Rowntree continued to deploy in York (Anderson, 1964; Briggs, 1961; Brown, 1992; Butler, 2015; Halsey, 2004; Rowntree, 1941; Savage, 2010).

#### 5. American expertise

From a broader geopolitical perspective, the tight wartime alliance between Britain and the United States was important for cementing the importance of American industrial and management expertise into British minds. Derived from the wartime experience and also as part of the Marshall Plan, postwar Britain was awash with (specifically and explicitly) American advisors and consultants providing input as to how to increase industrial productivity. The Hawthorne studies, helped by Mayo's retirement to Britain in 1947, perfectly aligned with this narrative (Carew, 1987; Tiratsoo and Tomlinson, 1993). Also, as Ussishkin (2013) has established, the war experience led to a 'new political endeavor' of public sector human relations management where morale was central to postwar industrial strategy, and into which Urwick and Brech (1949) slotted nicely. These interrelated factors – fashions in work incentives, the importance of personalities and networks, the relative weakness of British sociology, and the attractiveness of American expertise – would quickly combine to ensure that the Tavistock Institute's founders believed that the Hawthorne studies were unique.

### The invention of a tradition

The Tavistock Institute and *Human Relations* were founded in 1947 – the same year in which Mayo retired to Guildford, UK, and starting promoting his earlier career – and this also appears to have been the year in which the Hawthorne tradition was truly invented (Smith, 1998; Trahair, 2005). That year, Urwick was a major player in the formulation of the British Institute of Management (BIM), the first honorary fellows of which were Seebom Rowntree, Elton Mayo, and Lilian Gilbreth (Brech, 2002; Mayo, 1950). In addition, throughout the preparation of that year's 'Urwick Report', Urwick sidelined the

Confederation of Management Associations, represented by Northcott, in favour of the IIA, which his former Rowntree colleague Oliver Sheldon had founded in 1921 and in which he, Urwick, had been involved for years (Bryan, 2009: 92–95).

In 1947, both Mayo and Northcott were recognized as experts in similar fields, although Mayo managed to gain the edge even in personal appearances. That year, both were guest speakers at the IPM's conference in Blackpool, along with ICI's former Personnel Director, Richard Lloyd-Roberts (Institute of Personnel Management, 1947; Reader, 1975). As part of his keynote speech, Mayo discussed his role in the Hawthorne studies and stated that more personnel research should be conducted in the USA and Britain, as enhancing personnel management in industry was 'probably the most important problem facing human society' (Mayo, 1947: 266).

Just as Urwick and his assistant EFL Brech were inventing one tradition – the singularly 'vast treasure house of the work at Hawthorne' (Urwick and Brech, 1949: 2) – they were, in effect, neutralizing a different tradition that contained more than one example. Urwick and Brech argued that Mayo and his colleagues had 'launched what was to become one of the great pioneer enquiries of the modern world – the famous 'Hawthorne Investigations' (Mayo, 1950; Urwick and Brech, 1949: 3). This meant not only that *Incentives and Contentment* quickly disappeared from view, but so too did its findings, and the personnel who had performed the experiments recorded therein. Simultaneously, the Tavistock Institute was founded, and its methods formulated, including the Tavistock's study of sociotechnical systems in coal mines, which remain famous to this day (Lewin, 1947; Trist and Bamforth, 1951).

In the process of bolstering national pride, the interwar Rowntree studies later became overlain by other British studies, which further strengthened the invented Tavistock tradition. The Glacier Metal industrial democracy experiments, conducted primarily in the 1950s by another founder of the Tavistock Institute, Eliot Jacques, were much discussed in postwar Britain, including in *Human Relations*, the *New Scientist* and on the BBC (Brown, 1945, 1962; Child, 2011; Jacques, 1950, 1951; Jacques et al., 1950; Rice et al., 1950). In this newly invented tradition, the Hawthorne studies were seen as Glacier's predecessor. For example, writing in the 1970s, as Trist had been, and equally unaware of the Rowntree experiments four decades prior, Niven (1978: 124) argued that the Glacier programme was 'new in this country [the UK] and was as controversial as the Hawthorne experiments in the United States 20 years earlier'.

## Conclusion and implications

The publication of Landsberger (1958) rightly noted that the Hawthorne studies, Mayo's role in them, and Mayo's sparse discussions of trade unions, had been the subject of much debate in the years subsequent to their completion (Landsberger, 1958: 1) (e.g. see Barnard, 1968; Muldoon, 2012, 2017; Wren, 2005). Landsberger also noted that:

... the publication in the middle forties, however, of shorter books [especially Urwick and Brech's] summarizing these studies and drawing more general conclusions from them was taken as a *casus belli* by a variety of outsiders, from editors of *Fortune* to university professors all over the United States and Western Europe. (Landsberger, 1958: 1)



These points are valid. However, the point Landsberger (1958) did not present or analyse, which has been considered in this article, is that the Hawthorne studies have been treated as unique when they were not. This point has been alluded to before, albeit in a different fashion (see Kelly, 1978), and this article builds on this observation by revealing that their unique nature as the sole pioneers of sociotechnical research is what Hobsbawm (1983) calls an ‘invented tradition’. As Hobsbawm described invented traditions:

It is evident that not all of them are equally permanent, but it is their appearance and establishment rather than their chances of survival which are our concern . . . Where possible, they normally attempt to establish continuity with a suitable historic past. (Hobsbawm, 1983: 1)

To address this issue, this article has used many historical and archival sources to uncover and describe the hidden history of the Rowntree *Incentives and Contentment* studies. It has also examined the process by which the Rowntree studies were, over the course of 20 years, conceptualized, conducted, published, reviewed, systematically downplayed, and eventually entirely forgotten.

Western Electric (1973), a historical film about Hawthorne named *The Year They Discovered People*, featured many of the studies’ original participants. As the film accurately stated, ‘there probably isn’t a textbook on human relations that doesn’t mention the Hawthorne studies’ (Western Electric, 1973). Gillespie (1991) remarked that after five decades ‘the Hawthorne experiments are still among the most frequently cited and most controversial experiments in the social sciences’ (Gillespie, 1991: 1). Both points still remain true today. Perhaps, however, as Florence did in 1939, Gardner did in 1940, Northcott did in 1945, and potentially others did too, we should instead discuss the ‘Hawthorne and York experiments’, along with these studies’ differing results and how their contexts shaped their influence and memory (Florence, 1939a, 1939b; Gardner, 1940; Northcott, 1945).

This article aims to provide three additional suggestions for the Tavistock of the future, and management research and debate more generally. First, in challenging this invented tradition in management thought and practices, it builds on other studies by emphasizing the role of Britain and the Commonwealth, and their international influence, in what is still largely imagined to be a United States-centric history (e.g. Bourke, 1981, 1982; Bruce and Nyland 2011; Linstrum, 2012, 2016; Trahair, 2005). As I have explored in this article, the US-centric trope may have suited late 1940s Britain but in an increasingly multi-polar world it now seems a little dated.

A second proposal is to encourage researchers of the future to use the sources presented in this article to uncover more about the Rowntree experiments, such as experimental data, information about Patricia Hall and HW Locke, and the test workers involved. This would allow a more detailed comparison with the Hawthorne studies to uncover whether the Rowntree studies were in any way more authentic than the heavily contested Hawthorne experiments and research data (e.g. see Bernstein, 2012; Gillespie, 1991; Greenwood et al., 1983; Levitt and List, 2011; Western Electric, 1973; Wrege, 1976, 1986).

The final suggestion is to reinforce the main conclusion of the Rowntree studies: in contrast to some interpretations of the Hawthorne studies, which are still influential on management thought today, it seems a clear reason that people work hard in low-paid manual jobs is because they are paid to do so, rather than owing to social interaction and management attention (Brown, 1945; Carey, 1967; Dutton, 1971; Sykes, 1965; Welbourne and Cable, 1995; Whitehead, 1938; Whyte, 1956). While this final suggestion should perhaps be common sense, 70 years of lopsided source preservation, historical analysis, and historiographical accumulation have invented it as controversial.

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### Notes

- 1 The Tavistock Institute emerged from the older Tavistock Clinic, gaining momentum during the Second World War by running officer selection tests for the WOSB. It was formally founded as the Tavistock Institute of Human Relations in 1947 (Dicks, 1970; Trahair, 2015; White, 2015). Founded by specialists with training in psychology, sociology, or psychiatry, the Tavistock initially received a grant from the Rockefeller Foundation and formed connections with the government Department of Scientific and Industrial Research's Human Factors Panel, the National Institute of Industrial Psychology (NIIP; which published *Occupational Psychology*) and the Industrial Welfare Society (Trahair, 2015).
- 2 The interwar Works have become increasingly well-known to historians since the 1960s (e.g. Briggs, 1961; Child, 1964, 1969), particularly since the public release of the Rowntree archive in 1993 (e.g. Fitzgerald, 1995; Hollway, 1993; Horrocks, 1993; Weatherburn, 2014; Webb, 2009, 2018; White, 2014).
- 3 The latter is where the local York newspaper clippings were also located.
- 4 The British cocoa sector had benefited from the First World War, when Britain had minimal access to Swiss and French chocolate supplies. After the war, however, prices for cocoa and sugar increased considerably, leading to increased product prices (Fitzgerald, 1995). The response from Birmingham-based confectioners Cadbury's was to merge with Fry, forming Cadbury-Fry in 1919 (Chandler, 1990: 242). By the 1920s, Cadbury-Fry was both the dominant confectionery company in Britain and purveyors of Britain's best-selling chocolate product, Dairy Milk (Fitzgerald, 1995; Rowlinson and Hassard, 1993).

- 5 The Rowntree Works' number of employees rose from 5413 in 1919 to 10,298 in 1938 (Fitzgerald, 1995: 222). The Works' research staff were innovative in food research, product design (particularly the still famous Black Magic chocolate selection), and accountancy and budgeting methods (Fitzgerald, 1995; Horrocks, 1993; Wallace, 1928; White, 2014).
- 6 Having studied chemistry at Owen's College in Manchester, Seebohm joined the family firm and became a director in 1897. A friend of David Lloyd George, Seebohm was appointed head of the Health of the Munitions Workers' committee during the First World War, at which much influential research was conducted into optimal working hours and industrial health (Briggs, 1961; Kreis, 1995).
- 7 Also involved was Oliver Sheldon (1894–1951). Having studied history at Oxford, Sheldon was recruited to the Works after the First World War, and became Seebohm's assistant (Webb, 2009). While there he joined the Taylor Society, edited the *Cocoa Works Magazine*, and published Sheldon (1923). In 1921, he founded the Institute of Industrial Administration (IIA) and in 1931 was promoted to the Board of Directors of Rowntree's (Urwick, 1963: 279–281).
- 8 There was a shift from 60% of workers on payment by results systems in 1919 to 85% in 1936 (Hall and Locke, 1938: 110–111). Initially, these studies were inspired by RB Wolf's (1918) studies of incentivizing workers in the Ontarian wood-pulping industry, plus a visit by Wolf to the Cocoa Works (Northcott, 1945: 199). Northcott later recalled that these incentive experiments ran over a period of 18 months and studied the day-to-day work of 160 factory girls (Northcott, 1945: 199).
- 9 Between 1923 and 1931, 1287 girls of 14–16 years of age were hired to work in the factory after taking psychological aptitude tests (Moorrees and Northcott, 1933). This industrial psychology and selection work at Rowntree's was in line with its application at similar firms by the NIIP, by internal specialists, and also by the Industrial Health Research Board (Doyle, 1979; Kreis, 1995; McIvor, 1987).
- 10 Recent research has shed additional light on how work measurement systems and their units worked in practice in specific firms. Rowntree's Mark unit work measurement system had been derived from the Bedaux *B* unit (Weatherburn, 2014: 113–145). Work measurement was also used by other leading British manufacturers such as Cadbury's and ICI, the latter of which was a leading exponent of the Bedaux *B* unit (Kreis, 1992; Rowlinson, 1988; White 2014). ICI widely used the Standard Minute unit, based on the *B*, in its extensive factories and offices well into the 1960s (Weatherburn, 2017: 31–33).
- 11 A key transformation in personnel management during this period was to physically and intellectually mix welfare and management in a way not seen before the war, and to gain the backing of the state in expanding the number of labour managers. Prior to the war, welfare work and labour management were split along gender lines, with men assigned to labour management and women to welfare issues (Niven, 1978).
- 12 It has to be remembered that Labour won an unexpected landslide in the 1945 general election. As a result of the war, Bevin and other senior Labour figures came to see the wartime arrangement, which in part stemmed from the interwar Rowntree Works' management practices and experiments, as the model that should be applied to all public and private manufacturing establishments (Tiratsoo and Tomlinson, 1993).
- 13 After all, as Bailyn (2015) has recently reminded us, history does not unfold in the way we might think we would act in the same circumstances and nor were contemporaries aware of truths that historians have later recovered.
- 14 Northcott was apparently so convinced of the superiority of the Hawthorne studies that he moved onto new projects. Like Rowntree's poverty studies and the NIIP (Raianu, 2015) and some of the researchers involved in the Hawthorne studies (Linstrum, 2012), Northcott's influence diffused overseas. In retirement, Northcott moved geographic locations, revisiting

his focus on the psychological tests and training that had occupied him at York in the earlier 1920s and in nationalized industries during the Second World War. In 1949, Northcott was appointed Director of the Colonial Office's 1949 African Labour Efficiency Survey, which studied 7000 African employees of the Kenya and Uganda Railways (Northcott, 1949). His report's conclusion that white settlers were responsible for the allegedly low work efficiency of African railway workers was controversial even in the House of Commons (Linstrum, 2016: 144–146).

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