LETTERS FROM THE WAR FACTORY:
WOMEN WORKERS IN WORLD WAR TWO

Ron Fisher, Griffith University, Queensland Australia, Rod Gapp, Griffith University Queensland Australia and Alexandra Dobson, University of Wales, Newport

Abstract

This article begins to investigate how women working in factories in World War Two dealt with the day-to-day challenges of working life. The research is an exploratory study into an under-researched area that draws on the account of factory work contained in Mass-Observation’s contemporaneous publication entitled War Factory. Data is analysed by means of a qualitative content analysis of 30 letters written by women working in a factory in the UK and major themes emerging from the data are identified. The findings suggest that the account of women’s work provided in Mass-Observation’s publication War Factory does not reflect the true nature of factory life or women’s contribution to the war effort.

Keywords: World War II, Experiences of Women Workers, Attitudes Towards Women Workers

Introduction

The purpose of this research is to investigate how women working in factories in World War Two dealt with the day-to-day activities and challenges of their work. Social history research conducted in the early 1940’s by Mass-Observation (Harrison, 1943) purports to provide a contemporaneous record of factory work, yet its accuracy has been challenged. Summerfield (1985, p. 440) indicates that the stated purpose of Mass-Observation was to report what people actually thought and felt about events occurring in their lives rather than the official (and by implication biased) interpretation of such occasions. Summerfield (1985) claimed that in addition to the inherent bias resulting from a suspicion of official accounts of events of the day, Mass-Observation was also biased by the subjectivity of observers in interpreting the experiences of others. As a result of the perceived inaccuracies in Mass-Observation reports, Summerfield (1998) has concluded that oral history, based on interviewing participants directly to obtain their accounts of events, is the only way to actually obtain an accurate and correct view of what went on. This study acknowledges that accepting third-party accounts of social history uncritically is likely to reinforce the subjectivity of the researcher and any biases of the time. However, biases associated with third party reports of events can be avoided by analysing communications from women who actually worked in factories during
World War Two, thus providing a direct opportunity to understand the lives of working women at an important point in history.

This research is an exploratory study of written communications between women working in factories in World War Two. It is exploratory as it is intended to establish major themes in the correspondence as a basis for further research. In order to identify themes, a content analysis approach is adopted using Leximancer, data mining software (Smith, 2004). Firstly, the authors present an overview of the literature relating to women’s work in war factories. Secondly, letters written by women workers are content analysed to identify major themes. Finally the results of analysis are discussed.

Literature Review

In the UK immediately prior to World War Two many industries switched from civilian production to producing materials for the war effort (Cardinali, 2002). The change saw non-essential industries close down, which coincidentally were industries that employed high numbers of women (e.g. textiles, clothing, pottery etc.). The expectation was that women displaced from non-essential industries would transfer to factory work on a voluntary basis. However, not all women who were displaced through discontinuance of their employment commenced work in factories (Summerfield, 1984). In the UK between 1939 and 1943, 1.5 million women joined industries deemed essential for the war effort (Cardinali, 2002). By 1943 women represented 33% of the total number of employees in engineering businesses. In making the change to factory work many women did not experience a smooth transition to work in industry. Little consideration or attention was given to the apprehension felt by women put into unfamiliar work situations, or to the negative attitudes of some employers to women workers (Cardinali, 2002).

Between 1939 and 1943 high numbers of women joined the workforce in the UK, reaching a peak in 1943. The largest rise in women’s employment was in industries like engineering, which traditionally had lower numbers of female workers prior to the war. The influx of women into factory work coincided with a change in government policy in 1940 designed to encourage women to participate in essential industries. In the US immediately prior to the war the predominant view was that women should be involved in occupations such as domestic work, teaching, and nursing, and that this work was in some way natural for women. Discrimination against employing married women was rife, which proved to be counter-productive, given that such women constituted the largest untapped pool of labour. Prior to the Japanese attack on Pearl Harbour in 1941, there was an active agenda to keep women out of the workforce by reinforcing perceptions of their dependence on men. However, once the US entered the war government policy soon changed, with women quickly becoming an essential part of the US war effort.

In examining women’s work during World War II, Cardinali and Gordon (2002) discuss women working in factories from 1942 as an important part of the US war
effort. Cardinali and Gordon (2002) argue that with a continual loss of male workers to the war it became imperative for women to fill the gaps, particularly in factory work. However, women faced strong opposition from employers, mainly men, in undertaking what had traditionally been male-oriented employment. Many employers were sceptical of the ability of women to carry out work traditionally done by men. However, once women undertook work of this kind, it soon became evident that even without prior experience they could carry out factory work more effectively than many of their male counterparts. An example of women’s capabilities in undertaking traditional men’s work was captured for posterity in a painting by Dame Laura Knight in 1943 (displayed in the Imperial War Museum in London) of Ruby Loftus turning a breech ring at the Royal Ordinance Factory at Newport, work that had previously only been carried out by men after a lengthy apprenticeship (Cucksey and Griffiths, 2006). Summerfield’s (1984) research suggests that many women workers had a negative perception of factory work, often viewing it as boring and monotonous. Juxtaposed with this was reluctance on the part of many employers to employ women. There was also a perception that factory work was dirty and manual, and that factory workers were in some way lower class. In many cases women were assigned to factories in areas away from where they normally lived. Relocation added to the sense of physical and social isolation that many felt (Summerfield, 1984).

Summerfield (1998) found that contrary to history, women doing men’s skilled work in wartime actually accelerated pre-war developments of routine, monotonous, low status factory work for women. Summerfield (1998) also argued that instead of being influenced through patriotism, women in wartime factories were motivated mainly by material things. This argument (soon retracted) was based on Mass-Observation (M-O) reports that women tended not to identify with the war effort and essentially were motivated solely by the financial aspects of work. The disparaging view of women is reinforced by the contemporaneous account of factory work contained in M-O’s publication War Factory (Harrison, 1943). In War Factory, pen pictures of women workers describe them as follows: “…as good-natured as she is stupid…” (pg. 33), “…but natural high spirits enable her to treat the whole thing [work] as a huge joke” (pg. 33), “…her slapdash manner with the machine results in frequent breaking of drills—always an occasion for laughter, as her broken drills have become a standing joke” (pg. 34), “…a rather silly, sulky child…” (pg. 36), “…queer, old-fashioned looking little thing, with glasses and a rather high, childlike voice” (pg. 37), and “…is counting the days till she can leave in a much more definite way than most of them” (pg. 41). When describing women’s attitudes to their work the M-O account uses terms like “…in the machine shop as a whole there is little interest in the work” (pg. 42), “…apathy about the factory and everything to do with it” (pg. 43), “…not only do most of the machine-shop girls not understand what they are making, but most of them have not the faintest desire to understand” (pg. 43) and “…the majority of them are so little interested in the war that they do not care whether their work is important to it or not [italics in original]”.

In subsequent discussions with women who had worked in factories during the war, Summerfield (1998) found they took exception to the M-O view of how they actually conducted themselves when working in war factories. In some cases women told
stories of how they were motivated by mothers and fathers and male members of their families who were actually engaged in war activities, and their desire to make a positive contribution to the war effort. Somerfield (1998) concluded that trying to analyse third-party contemporaneous accounts (e.g. Mass-Observation) of women's work in the war often results in incomplete and unsatisfactory descriptions. Korczynski et al. (2005) argued that in collecting the data for War Factory the M-O observer noted an absence of social norms and values, often experienced when people are uprooted from their normal environment. While women often enjoyed the camaraderie of factory life, most found the work to be boring and noisy. It certainly was not fun and so in many factories women turned to music for relief from their work situation.

Summerfield’s (1998) research highlights the dangers of accepting accounts like M-O observation uncritically. Mass-Observation claims to be able to understand what people mean by the words they use, through observation, sometimes by recording conversations, sometimes by direct discussion, or by interview. Research was undertaken by researchers working in factories and was conducted in a way that reflected badly on workers and management alike. As with much research of this kind, the subjectivity of the researcher became intertwined with the accounts of the workers. Interestingly, although some women claimed that their lives had been changed as a result of the war, they did not believe that this made them equal with men in the workplace (Gazeley, 2008). In some instances women claimed that the war made little difference to them and some indicated that the change to wartime work did not have a significant impact on them. In other cases women spoke of wartime work in terms of opportunity and achievement. Summerfield further concluded that oral history, based on interviewing participants directly to obtain their accounts of events, is the only way to actually obtain an accurate and correct view of what went on. This study acknowledges that accepting third-party accounts of social history uncritically is likely to reflect the subjectivity of the researcher and any biases of the time.

**Methodology**

As the purpose of this research is to understand the meaning contained in letters written by women factory workers in World War Two, a qualitative methodology and method were considered to be appropriate. More specifically, content analysis was selected as an appropriate means of examining the communications in question (Neuendorf, 2002, Weber, 1985). Content analysis is a widely used qualitative research technique for discovering the latent or implicit meaning in written communication (Neuman, 2003, Hsieh and Shannon, 2005). The communications examined in this study are 30 letters written by women working in a factory in Sheffield, UK in 1942. The letters were written to a young woman who instructed the group in welding. The instructor was also a field worker for Mass-Observation (M-O) and retained the letters, which now form part of the M-O archive at the University of Sussex. Following inspection at the M-O archive, the letters were obtained on micro-film and subsequently transcribed into a series of text files for analysis.
Data were analysed qualitatively using lexical analysis as a means of content analysis. The aim of the analysis was to establish an understanding of the daily lives of women during their time working for the war effort. The analysis was designed to provide insight into aspects of the day-to-day work-life of women working in factories and their life in general during the period. In addition, the research aimed to appreciate the women’s motivation, their commitment to the nature and type of work and the associated stresses they faced working in factories.

Leximancer Version 2.3 analytical software was used as the data analysis tool. It is able to generate and put similar words into groups automatically as synonyms, then to represent them as a “concept” (Smith, 2004). In computer-aided lexical analysis, each word forms the unit of analysis (Krippendorff, 1980). The initial execution of Leximancer identified 44 concepts from the letters written by women working in war factories. The number of concepts was decreased incrementally in order to remove concepts associated with individuals’ names, such as work or life partners. After removing individuals’ names 41 concepts remained, the frequencies of which are presented in Table 1 (Appendix A). After further iterations, it was observed that no new concepts above the 41 already identified were evident, therefore, the concepts identified in the analysis were deemed to be saturated (Strauss and Corbin, 1990).

The concepts in the lexical analysis are organised around six themes, with the core themes being welding, telling and work. Three additional themes located outside the work related areas are letter, love and nice. These additional themes are tangential to the core themes and will be considered in future analyses, as they do not directly provide insight into aspects of the group of women within the factory-work context. In order to develop the process of analysis the nature of each of the three themes is presented and then the themes are integrated to provide an overarching picture.

Core Theme: ‘Work’

This theme relates to the work activities of the group and consists of comments relating to general activities that filled the women’s days. It also includes statements such as: "just come back from Ilkley after a very enjoyable week" where the individual links factory life to the social activities that all enjoy. The more work-related comments provide insight into the situations and activities that confronted these women, including health and safety during tight fiscal times:

…what a finger she has got septic in it and it is swollen up shocking but she will be at work tomorrow, whether she works or not, because we have had no wage this week and we are relying on next week’s wage for our…

The quote above emphasises the need to work, the implications of the working environment and the physical well-being of the women workers. Further insight into direct interactions between women and their daily work activities during the week are highlighted below:

We had a rather striking episode at lunch time, all the seats in the canteen were reserved by different girls, so Emily and I ended up outside, and sat
on the floor to have our dinner. If we manage alright with the machine this week, we are expected to go on nights next Monday, so just say a prayer for us tomorrow will you please.

Here, the nature of lunch-time interaction, the development of skills and the possibility of being accepted onto a night shift are shared with the recipient of the letter and followed by a request for moral and spiritual support. It thus links to the theme ‘telling’, which also sheds light on the work undertaken by the female letter writers.

Core Theme: ‘Telling’

The key concepts presented in this theme related to women ‘telling’ of a work situation or being ‘told’ by others. Most discussions took one of two forms: the first type related to telling about industrial accidents or difficult work situations. The second related to workplace bullying and the use of language or name calling by the male foremen and supervisors, which could humiliate the women. In regard to this second position, typical of the ‘telling’ theme are the following quotes, which illustrated how a lack of understanding of the language of the trades led to humour, but could cause humiliation:

What he told her to fetch was a “half putting on tool”, female, and of course this seemed quite logic to unsuspecting Fanny, so off she trots to the stores and finally has the whole machine shop in tears of laughter.

We have a terrible time with the fellows they tease us awful. Enid has a new name now. Daphne Squeaker, because they say she squeaks when she gets mad.

The first example illustrates how a supervisor, through the use of unfamiliar language, caused the female worker’s enthusiastic reaction to turn to humiliation. The second quote is one example from several, where the worker was being called names or teased.

In relation to the first type of discussion, the quotes below demonstrate the lack of health and safety provision and the rapid way the women were introduced to their new trades/jobs. It seemed that talking about the injury and pain suffered at work was one of the few ways that this group could find to deal with this issue.

Am going to tell you all now. First on Tuesday night about seven o'clock I had quite a shock, after I had washed myself, my left eye was rather troublesome so I used some Optrex, no response, Boracic Crystals no response, Golden eye ointment and is after all these I put a tea leaf poultice on and tied a bandage around this eased it a little but oh what pain I had… …I have had a new experience today some slag went in my ear, I nearly went mad I could not get it out…
…my eyes were sore could not see out of one my body and arms are one mass of spots, it starts irritating all night cannot sleep…

The cause of these injuries was the type of work being undertaken, namely welding and thus links directly to the final theme discussed below. Further comments contained in the letters reveal that the women talked about learning how to deal with the environment, their frustration and their desire to support those actually at war.

**Core Theme: ‘Welding’**

The ‘welding’ theme provides insight into engagement with the main work activities. The following quotes are typical:

> Work isn't going down to bad, and good to say I never get bored with welding

> I wish we could get a job in Sheffield, welding of course where there would be more money and more work, as we have hardly anything to do, last week Violet and I were working the 2-10 shift and after 5 o’clock we had to do core-making, so you can tell how busy we are welding. If you could tell us, Miss Pearson, of any firms in Sheffield wanting girl welders we would see what could be done about us being released from this dump of David Browns, we are all fond of our job of welding, and I, for one wouldn’t like to give it up.

Although these statements demonstrate that the women enjoyed their core activities, the following quotes reveal that the women were often frustrated:

> I have never been so disgusted in my life at the disgraceful way Hopkinson's Ltd. is managed. We are not welding; we are pushed from pillar to post, and today, after asking the foreman for a job, he said "just stand there in that corner".

> Anyway there is one booth up and do they look funny. The machine hasn’t been coupled up yet or I should ask them if I could practise a bit as I haven’t got a job. I didn’t know it was such hard work doing nothing. I only did about 20 mins work on Sat morning.

> We had quite a shock this week, we were told we may be welding by Monday, but alas and alack it is the usual nazi-report. Anyway there is one booth up and do they look funny. The machine hasn’t been coupled up yet or I should ask them if I could practise a bit as I haven’t got a job. I didn’t know it was such hard work doing nothing.

These comments also provide an insight into the management style, or lack of management, within the industries that these women worked. Ineffective management is exemplified in the first quote where a willing worker was required to stand in the corner, as the work that she wanted to undertake was not forthcoming.
The following quotes demonstrate that the possibility of becoming blind from welding was not enough to hinder the commitment of some women to the war effort:

Ms. Amy Brook is suffering from myopic plus astigmatism and is unfit for electric welding [too much eyestrain] 9/11/42

The same person goes on to say:

Tell your father to demand my presence in the welding will you please?
What is your idea of red and blue ink I must say you are very patriotic (I wonder) or was it the pen that knocked or maybe the blue ink wanted filling up.

**Consideration of the Three Core Themes**

Consideration of the three themes enables us to begin to understand the motivation and commitment of the women workers. In relation to the work the women undertook, it is clear that weekly activities were complex with interactions ranging from health and safety issues, to concerns relating to financial matters and the ability to support both the war effort and their families. There is also active insight into how letter writing provides a mechanism to discuss work and personal issues and helps to develop supportive alliances to do what is difficult, demanding and often work to which the workers are not accustomed. Comments relating to these weekly activities are rich in material that creates an understanding of the nature of these women, their efforts and the management processes that they encountered. Further detail is gained as we move from this theme to the second theme of ‘telling’, where we gain a deeper understanding of these people’s lives.

The ‘telling’ theme links to the ‘work’ theme by providing the next level of depth in the discussion. Here the women talk openly about the course undertaken to become a welder, the aspects of the job that they are told how to do and how the ‘girls’ can become better at these activities. There is discussion of the specific daily activities, of what is happening today and tomorrow and how ready the women are to do this work. It is from the concepts of the ‘girls’ and ‘tomorrow’ that the ‘welding’ theme emerges. In the ‘welding’ theme, there are four distinct conversations these are: 1) the importance of welding in providing materials and equipment that directly support the war effort; 2) the lack of work caused by the disorganised work/management environment they find themselves in and how they and their machines are left idle; 3) the pride that this work creates in terms of being both involved in the war effort and in supporting their families financially; and finally, the extent to which these remarkable women were committed to their work. In relation to the latter type of conversation, comments ranged from bullying, to demanding to be given work, to working and refusing to stop working with eye injuries. The letters emphasise the drive and capacity to learn of the female workers, which arguably would be the envy of many modern organisations.
Conclusion

The above discussion is the first stage in research that provides a fresh perspective into the account of women’s factory work contained in the Mass-Observation’s contemporaneous publication. The discussion takes a more direct route to analysis of the communications of women factory workers in World War Two. In doing so it provides an insight into the lives of female factory workers at a momentous point in history. This paper is the first stage in research that scrutinises women’s correspondence and it begins to provide an alternative view of their contribution to the war effort. Through the women’s voices that we hear in phase one of the research, we are provided with an insight into women’s war work that already allows a greater depth of understanding of the lives and contribution of women factory workers. The way in which female workers saw themselves, and by contrast the sometimes negative and discriminatory view held by others is clearly indicative of a wider gender debate. It is emphasised that this paper is introductory in nature and will be followed by further analysis of the data. A huge amount of material is available which considers mass observation and its place as a major social research project and the researchers will continue to explore this rich source of data.

REFERENCES


APPENDIX A: Leximancer’s ranked concepts from the letters from women in war factories

Table 1: This table presents the counts and relevance of the 41 concepts identified by leximancer

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<thead>
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<th>Count</th>
<th>Relevance</th>
<th>Word –like</th>
<th>Count</th>
<th>Relevance</th>
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