theories and methodologies

Gender and Wartime Work

JORDYNN JACK

DURING WORLD WAR II, WOMEN WERE HEAVILY RECRUITED FOR SCIENTIFIC AND TECHNICAL JOBS ACROSS THE UNITED STATES. MANY ASsumed roles previously allotted to men, serving as welders, riveters, sheet metal workers, crane operators, ship fitters, and chauffeurs, to name just a few. Between 1941 and 1944, over 6.5 million women joined the workforce; over 10 million were already working outside the home in 1941 (Pidgeon vi). The Brooklyn Naval Yard, featured in *Manhattan Beach* as the workplace of Anna, Nell, and their friends, also saw an increase in women workers, albeit a somewhat modest one. By 1944, according to *The New York Times*, women represented 4,000 of the 65,000 workers at the Brooklyn Naval Yard, not counting office workers ("Women Help Build Carrier"). While women represented just 6% of the industrial labor force at the Brooklyn Naval Yard, women represented 11.5% of all shipyard workers in 1944, according to the United States Department of Labor (Hirshfield 481).

Scholarship about this time period has identified how wartime propaganda oversold the extent to which women's work transformed industry or improved women's fate in the workplace. As Ruth Milkman argues, women's experiences were shaped by an "idiom" of sex typing, through which occupations were cast as either men's or women's jobs; when men's jobs needed to be handed off to women, they were reshaped into tasks it was assumed women could perform. Sex typing ultimately limited possibilities for women's employment, especially in the highly skilled, high-paying jobs traditionally given to men (15). As Milkman puts it, "Contrary to the presumption of most commentators that sex segregation was broken down during the war . . . new patterns of segregation were established 'for the duration' within previously male sectors. Rosie the Riveter did a 'man's job,' but more often than not she worked in a predominantly female department or job classification" (9). Recruitment rhetoric in films, posters, pamphlets, reports, and news articles demonstrates how this idiom circulated during the war. These materials stressed how women could contribute to the war effort and gain new skills. Yet these publicity

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PMLA 134.2 (2019), published by the Modern Language Association of America

https://doi.org/10.1632/pmla.2019.134.2.398 Published online by Cambridge University Press

materials also relied on gendered topoi involving women's character, talents, and physical abilities that contribute to the idiom of sex typing. In what follows, I outline several topoi that shaped not only wartime rhetoric about women but also the material realities of their positions. I'll show how, to some extent, these topoi square with Anna's experiences in *Manhattan Beach*, even as Anna disrupts expectations about women's abilities.

I am engaging, in particular, with *eide topoi* ("special topoi"), which are closely linked to disciplinary knowledge or specific fields of discourse, as opposed to *koinoi topoi* ("common topoi"), which can apply to any situation or subject. As Carolyn R. Miller notes, special topoi have three typical sources: "conventional expectation in rhetorical situations, knowledge and issues available in the institutions and organizations in which those situations occur, and concepts available in specific networks of knowledge (or disciplines)" (67). The topoi that circulated during the war to describe women's employment drew from a repertoire of expectations both about women in general (their bodies, abilities, and skills) and about technological work. While they emerged from what Miller might describe as disciplines or fields of knowledge, they also literally disciplined women's bodies and the spaces in which women worked, shaping the kind of work they were able to perform and the conditions in which they performed it. In this way, wartime topoi about women's labor also function as what Christa J. Olson terms embodiable topoi, "repeated motifs, forms of pattern recognition, or storehouses of social energy that [gain] their force by indexing and incorporating available assumptions about the bodies they reference" (303). Embodiable topoi may be referenced in texts (as in descriptions of women's nimble fingers on the assembly line), depicted in images (as in wartime posters and propaganda images of women at work), or even incorporated into the embodied performances of individuals (in more or less deliberate ways).

The first topos I consider involves the kind of work deemed appropriate for women: work that was tedious and repetitive. A 1942 article in *The New York Times* outlined three classifications of jobs suitable for women, paraphrasing Mary Anderson, the director of the Women's Bureau in the Department of Labor,[1] who "pointed out that keen attention to detail, finger dexterity and ability and willingness to work at tedious jobs" were common qualifications ("Women Are Classified for Factory Jobs"). The three employment groups were as follows: the first group included jobs where women were already at work, such as light assembly and paint work; the second group included jobs that employed women to some extent and that more women could do if they were given a bit more training, such as work with lathes and punch presses; and the third group included jobs that were highly paid and required extensive training, and therefore employed fewer women. While Jennifer Egan notes that Anna's first job measuring small ship components required only a short training course (21), according to the Women's Bureau it would have appeared in the third group, which included "inspection by the use of gauges, micrometers, calipers and blueprints" ("Women Are Classified for Factory Jobs").

Even in the more skilled job categories (group two and group three), however, labor was sometimes reconfigured so that women could perform more simplified, repetitious work. In the shipyards, the process of shipbuilding was changed so that it required less training and only semiskilled workers (Hirshfield 478). For instance, Liberty ships were designed to be built quickly, but that meant they were also less durable than ships built before the war (478). Instead of riveting parts together, workers welded them, which was faster and required fewer workers and less steel (479). Women who became welders learned "down hand" welding for subassemblies, not more advanced welding techniques that would help them gain useful skills in the long

https://doi.org/10.1632/pmla.2019.134.2.398 Published online by Cambridge University Press

term (480). Thus, work might be redesigned to be tedious and repetitious so that women and other untrained workers could perform it.

A second topos informing wartime work involved positioning women's jobs as akin to familiar domestic tasks. For instance, a Woman's Bureau bulletin titled *What Job Is Mine on the Victory Line?* included this passage:

> If you've sewed on buttons, or made buttonholes, on a machine,
> You can learn to do spot welding on airplane parts,
> If you've used an electric mixer in your kitchen,
> You can learn to run a drill press,
> If you've followed recipes exactly in making cake,
> You can learn to load shells. (qtd. in Lapin 6)

We see a similar pattern in the propaganda film *Glamour Girls of 1943*, which notes that "[i]nstead of cutting out dresses, this woman stamps out the patterns of airplane parts" while another cooks gears "instead of baking cakes." In these depictions, domestic skills are recast as technical skills.



FIG. 1
Image courtesy of the United States Office of War Information. LC-USE6-D-005881, hdl.loc.gov/loc.pnp/fsa.8b07357.

This topos parallels Anna's experience. Having grown up sewing garments with her mother for piecework (Egan 24), Anna applies her domestic skill to measuring small equipment. Her sewing plays a role in other scenes in the book—notably, her ability to transform an ordinary dress into an appropriate "going out" ensemble. Yet we also get the suggestion that her quick fingers were useful in the shipyard, given her aptitude with untying knots and performing underwater tasks.

The assumption that domestic skills could be transformed into industrial ones overlaps with a third topos, that of manual dexterity. Wartime rhetoric frequently stressed how women's small, quick fingers suited them for work with small parts. For instance, a wartime image from the Office of War Information features a woman seated at a desk where she is inspecting ball sockets. The description provided for this image by the United States Office of War Information highlights her small, feminine hands: "Scarlet fingernails give emphasis to the important work that feminine fingers are doing on this inspection line. Performing a delicate and repetitive job, women at this Midwest aircraft motor plant use dial indicator gauges in the process of inspection of ball sockets used in airplane motors" ("Women in Industry"; see fig. 1). This type of inspection work would have been similar to what Anna performed at her job.

Wartime rhetoric likely oversold how easily such work came to most women. In a memoir published after the war, for instance, Josephine von Miklos describes how intimidating this precision work was at first:

> When you first watch the operators who have sat and made holes since the loading room begin to turn out these rings, you marvel at the speed with which they drill holes. You are quite sure that you, who have never done production work, can never work that fast. . . . But then this is what happens. Somehow you get used to the little purposeful movements; you figure out your own short cuts in picking up

https://doi.org/10.1632/pmla.2019.134.2.398 Published online by Cambridge University Press

> The Work and drilling it, and putting it away. At first everything is in your way, your own hands, your own chest, your own eyes, almost. Your fingers stumble over The Work, and fumble. And then, after a few days, without rhyme or reason, they don't do that any more. They pick up The Work at the exact point where it ought to be picked up. They fit The Work to the jig at the exact point where it must be fitted. You press down the lever just the right amount, just the right way, until it goes no further. You release the lever just slow enough, and just fast enough, so that it settles back where it ought to be in between making holes. (45)

What was difficult for Miklos apparently came naturally to Anna, however. Anna's manual dexterity marks her as exceptionally suited for diving, which requires manipulating items underwater, in the dark.

Early on in the novel, Anna demonstrates her ability to put together train parts when she visits Dexter Styles's home with her father. Her interest in and skill with a mechanical toy meant for boys—a Lionel train—comes across as remarkable given that Tabatha, Styles's daughter, was simply watching, "entranced," as Anna put the pieces together (Egan 5). Her ability makes her war job easy for her—perhaps too easy. In a later scene, Anna "had an urge sometimes to try and use just her fingers to gauge whether the parts were correctly sized" (51). She is reprimanded by her boss for doing so but later bests her male counterparts at this type of task underwater, where assembling or fixing must be done with limited visual input.

The kinds of work I have described so far, while requiring different skills, were all deemed appropriate for women because they could be classified as light labor—taxing in terms of dexterity or patience but not in terms of brute strength. Yet diving also required Anna to bear heavy loads, as Egan carefully describes in the book. This type of experience is less common in the historical record and leads to a fourth topos, that of light labor. There likely were no female divers at the Brooklyn Naval Yard, and women were typically excluded from any work requiring heavy lifting.

A bulletin put out by the Women's Bureau in 1944 suggests that employers "[s]urvey jobs to decide which are most suitable for women" and "[m]ake adaptations of jobs to fit smaller frames and lesser muscular strength of women" (United States Department of Labor iv). For instance, a handbook titled *Wanted: Women in War Industry* noted that women's smaller, lighter bodies—normally considered too delicate for factory work—were actually well adapted for work in the aircraft industry: "It's a lot easier for a fly-weight worker to crawl inside a wing or walk across a piece of framework than for a larger woman or a man" (Baker 18). When necessary, heavy equipment was adapted to suit women's bodies. For instance, Katherine Glover described how factories installed wooden platforms to help women reach heavy machinery, how steel jigs were replaced with Masonite to make them lighter, and how operations were broken down into smaller steps "to make the work more suitable for the greater quickness but less strength of women" (11). These adaptations made it possible for women to take on much of the work previously performed by men.

However, wartime employers were encouraged to carefully assess how much weight women could lift comfortably. One of the bulletins from the Women's Bureau provides an example in which a gun manufacturing plant did careful assessments of how much women could comfortably lift from either a seated or a standing position; based on these tests they set the limit to eighteen pounds for repeated lifting and thirty-five pounds for occasional lifting (United States Department of Labor 2).

In fact, the rhetoric surrounding "heavy lifting" betrays some anxiety about the ability of women to fully overtake men's roles. According to an article in *The New York Times*, women could not generally "qualify for jobs

https://doi.org/10.1632/pmla.2019.134.2.398 Published online by Cambridge University Press

that require considerable physical strength or for those that necessitate skills that can be acquired only through long apprenticeships. The women's bureau of the United States Department of Labor has rated the average woman's strength at 570/1,000 of a man's, which, it was said, made it clear that women never would replace men in the jobs involving heavy lifting" ("First Women"). Such language reassured readers that, while women could translate their feminine abilities into wartime work, they would never permanently supplant men, who were both capable of heavy lifting and more suited for jobs requiring long-term training. Stipulations about women's capacities for bearing heavy weight excluded African American women, who were sometimes employed in strenuous work that was not allotted to white women, such as track repair work in the railroad industry (Cooper and Oldenziel 10).

The bulletin from the Women's Bureau assumes that jobs requiring lifting are likely to be suitable for only a "moderately husky" woman, not a "slight" one (United States Department of Labor 2). Anna, however, is not husky. While she is described as being taller than average, with the "flinty, taut-shouldered bearing of a man," she remains decidedly feminine and is certainly not depicted as overweight or chubby (Egan 59). Anna Kerrigan's ability to take on dive work thus marks her as an exceptional woman, given that she could perform the physically demanding work of a diver while being simultaneously white and slender.

This leads to a fifth topos informing wartime rhetoric: that of the exceptional woman. The rhetoric of the exceptional woman appeared regularly in vocational manuals published in the decades leading up to World War II. For instance, a 1926 handbook titled *Fields of Work for Women* notes that women seeking to enter nontraditional careers need to possess "the courage to be a pioneer" (qtd. in Leuck 302). Such texts uphold what Lois Cucullu describes as the myth of the exceptional woman, the modernist notion that only exceptional women could become experts in a given field; these experts "suppress others as less knowledgeable and . . . selectively credentialize others to sustain, extend, and reproduce expertise" (46).

While propaganda emphasized the need for women in new scientific and technical professions, this often resulted in short-term training programs that moved women quickly into lower-level positions. Exceptions could be made only for women whose ability, work ethic, and quality of work were on a par with those of men, a fact that had been obvious to women for decades. The rhetoric of this propaganda dismisses the role of discrimination against women, even though many careers were simply not attainable for them. This discrimination extends to the attitudes women might confront when seeking to enter a nontraditional field, as Anna does in the novel.

Anna's entry into diving marks her as exceptional both in the novel and in terms of historical precedent: it is likely that no women participated in that particular wartime task, probably because it required the ability to bear tremendous weight. Anna's ability to do so leads her to become the only woman on her work team, an exception used to prove the rule. In fact, Anna proves useful for Lieutenant Axel in precisely this way: he holds her up as a model in order to shame the male recruits. On the first day of training, he informs his group of volunteers that "that *girl* standing over there—she's on the tall side, but she's no Sherman tank, like a lot of the females you see around here—she not only wore the dress without bellyaching, walked in the dress without bellyaching, but she also untied a bowline on a bight wearing three-fingered gloves" (Egan 204).

Notably, the exceptional woman is meant to be exceptional in terms of ability only. On all other counts—appearance, behavior—she is expected to be traditionally feminine.

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This leads us to the penultimate topos I will consider here: feminine beauty and delicacy. According to Maureen Honey, "[t]hough the economy required that women assume male roles, don functional clothing, and engage in physically demanding work, the emphasis on female sexuality gave the message that these new roles did not signify fundamental changes in the sexual orientation of women themselves or in their customary image as sexualized objects" (114). Wartime propaganda relished the contrast between women's labor (coded masculine) and their appearances. *The New York Times* regularly published reports of the natty uniforms designed for women war workers, such as a uniform for bus drivers featuring a "slim, fly-front, flared skirt buttoned from belt to hem" ("Uniform"). Factories installed beauty parlors to ensure their workers could still have time to get their hair done, and work caps were designed to accommodate "curls and pompadours" (Davis 44). Nell tucked her "pale froth of curls" under a scarf to avoid injury (Egan 54); the risks of getting a curl caught in a machine were widely advertised to women workers through appeals to vanity—surely no woman wanted a bald patch on her head (Patnode 232).

Anna's friend Nell, in fact, exemplifies the femininity topos. When they first meet, Anna recalls that she has seen Nell in a newspaper article profiling women workers in the shipyard. Singling out particularly attractive workers for propaganda was a common practice in the period, perhaps because images of traditionally feminine women performing war work reassured viewers that the gender hierarchy was not being disrupted, despite the temporary urgency of the war. Notably, Nell quits her work in the factory not because of her own disinterest, but because the smell of the factory disgusts her lover.

Finally, then, while the entry of women into wartime work was a break from tradition, it was not a very big break. Women's tasks were typically described in ways that subordinated them to men's work. The topos of the "helper" or "aide" (or in scientific fields, "technician") helped accomplish this. Contemporary descriptions of the Brooklyn Naval Yard, where Anna and Nell work, reflect this broader trend. A headline in *The New York Times* sums it up well: "First Girls at Navy Yard Like Their Jobs as Helpers" (Peterson). Not only are women referred to by the infantilizing term *girls*, which was common at the time, but they are also positioned as helpers. It was not unusual for women to be given job titles, such as "aide" or "assistant," that marked their place in the hierarchy. For instance, women engineers were given the federal job title "engineering aide"; women trainees at the Curtis-Wright corporation were called "Cadettes" (Oldenziel 161, 163).

Despite the limitations accorded to them because of their gender, many women enjoyed the work they performed during the war. An account by Matilda Hoffman Becky Havers provides one such example. Havers worked at the New York Shipyard (located in New Jersey). She got a job there after a two-month training gig in a machine shop and soon learned to perform multiple tasks in the shipyard:

> I moved around a lot as I could run all the machinery. I worked on the turret tops, set them all up myself. I had a tacker assigned to me. I did all the body bolts for the armorplate. I had to read all the blueprints and cut my own stock and everything, which I did. . . . I worked at the shipyard almost four years and enjoyed every minute of it. (qtd. in Wise and Wise 35–36)

Even though both Nell and Anna disliked their factory jobs, for different reasons, historical accounts suggest that many women found their wartime work fulfilling, whether because they wanted to contribute to the war effort, enjoyed learning new tasks, or welcomed the relatively high wages they earned. (Although men still earned more

https://doi.org/10.1632/pmla.2019.134.2.398 Published online by Cambridge University Press

than women in most jobs, war work tended to pay better than the kinds of work women typically performed before the war.)

Egan has written a book that generally hews to the historical record, except in terms of Anna's unlikely success as a diver. Even in making this exception, however, Egan upholds the rhetoric of the exceptional woman that paradoxically helped maintain the idiom of sex typing while denying its sexism—a pattern that existed before the war and, unfortunately, continues to exist today.

Note

1. Founded in 1920, the Women's Bureau promoted the welfare of working women. During World War II, it focused much of its efforts on expanding opportunities for women in war industries, often advocating for better training, working conditions, and wages. For an overview, see Laughlin.

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