A gender perspective on work-related accidents

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ABSTRACT

The key argument in the article is that a perspective on gender and masculinity could be beneficial to safety research. The aim is to outline a theoretical framework for combining gender research and safety research. In the first part of the article four strands of gender and masculinity theory relevant to safety researchers are introduced: The first position outlined is the theory of hegemonic masculinity which highlights the privileged position of men who represent dominant and legitimate form of masculinity. The next two positions outlined represent a classic distinction in gender theory between an approach conceptualizing gender as a relatively stable category and an approach underlining that gender is constantly produced and reproduced. Finally the notion of intersectionality which emphasizes the mutual interaction between different categories such as gender, class, age, and ethnicity is outlined. The second part of the article re-interprets two examples of existing outstanding safety research which have all been published in Safety Science. The two contributions are re-interpreted through a gender lens illustrating how gender and masculinity perspectives can be crucial for understandings of safety and the practices that lead to work-related accidents. The article concludes that the gender perspective is useful to expand the knowledge about safety and work-accidents in relation to for instance pride and bodily strength as well as the struggles between different masculinities.

1. Introduction

Over the last 30 years, a promising 'cultural turn' in safety research[1] has brought social context, interaction and practice to the fore (Gherardi et al., 1998a,b; Gherardi, 2006; Gherardi and Nicolini, 2000a,b; Baarts, 2009; Haukelid, 2008; Knudsen, 2009; Richter and Koch, 2004). Yet some aspects of culture seem to be under theorized. Gender is one such aspect. This article suggests that gender and in particular masculinity could be considered central concerns for the further development of safety research.

The relevance of gender in this research field is illustrated by the fact that more men than women die or are severely injured in work-related accidents. For instance, in the period 2006–2011, men accounted for 93% of all fatal occupational accidents in Denmark even though men only make up 52% of the work force. In addition, the incidence rate ratio of serious accidents at work was 1.72 in disfavor of men (Arbejdstilsynet, 2012). The same tendency is found on the average European level where 'men ac-

count for 95% of fatal accidents and 76% of non-fatal accidents in the workplace' (Oortwijn et al., 2011). Admittedly there are problems in comparisons of men's and women's accident ratios: Gender-segregated labor markets rarely allow for all-other-things-being-equal type comparisons and some official statistics only allow for comparison on a crude aggregate level (Taiwo et al., 2009). However, the statistics do indicate (taking the segregation of the labor market into account) a relation between being a man and an increased risk of a work-related accidents (Smith and Mustard, 2004).

Still, theoretical reflections on gender and masculinity are rare in safety research.[2] To the extent they occur they are often limited to regarding being a man as a risk factor, and gender is only analyzed as a binary dichotomous variable (i.e. man and woman). The absence

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  [1] This development which begun in the 1980s has been called 'the third age of safety' (Hale and Hovden, 1998).

[2] A search for the term "masculinity" in two flagship journals on safety research, Safety Science and Journal of Safety Research, in August 2011 turned up 8 articles in Safety Science and 3 in Journal of Safety Research. In most articles the notion is only used once, and neither contemporary gender nor masculinity literature is mentioned. In only one case (Granié, 2009) is masculinity understood by emplying Hofstede's (1991) somewhat crude version of the notion. The notion of "gender" is admittedly employed more often. It prompts 219 hits in Safety Science and 368 hits in Journal of Safety Research. A screening implied, however, that most studies simply controlled for gender through the variable biological sex (male/female) but without including a theoretical gender perspective in the analysis.

of theoretical reflections on masculinity is somewhat paradoxical; the most risky and dangerous occupations most often studied by safety researchers are inherently male, and most safety studies are conducted in workplaces where men are either highly over-represented or completely dominant numerically. In other words, most safety research is and has always been about men, and masculinity seems to be implicitly in play in several ethnographic studies that have appeared in *Safety Science* (e.g. Holmes et al., 1998; Atak and Kingma, 2011) and elsewhere (Gherardi et al., 1998a,b; Rooke and Clark, 2005; Baarts, 2009; Bruns, 2009). Yet, few studies reflect how masculinity is central to the safety cultures and practices studied. To borrow a term from Collinson and Hearn (2001), men are not named as men, nor are reflections on differences between masculinities within and between workplaces common. Our discussion thus coincides with the common and everyday observation that there can be quite substantial differences between men and masculinities within and between organizations. These differences within the group of men are, however, rarely conceptualized or named in safety research. We suggest that safety research might gain from taking such different and competing masculinities into account. By different and competing masculinities we thus mean that in any given organization or workplace there are different ways of being a man and these may sometimes compete for the position as the most legitimate masculinity. Furthermore these different and competing masculinities may have different safety implications. For instance some men might base their masculinity on the mastering of technology (which would allow them to use lifting equipment without their masculinity being questioned) whereas others might gain masculinity from bodily strength (making the introduction of lifting equipment difficult). These masculinities then have different safety implications when it comes to accidents related to lifting – and understanding which of these two masculinities is more commonly considered to be legitimate among workers in an organization might be central for predicting the incidence of such accidents. This is of course only a somewhat simplified example as we will develop the argument below (primarily Section 2.1).

Concurrently, a large field on gender in organizations has been developed. It conceptualizes gender as built into the assumingly gender-neutral practices, symbols and identities in organizations, and researchers seek to capture and analyze the meanings and impacts of gender in work-life (e.g. Acker, 1990, 2012; Kvande, 1995, 2007; Martin, 2003, 2006; Gherardi, 1994, 1995; Gherardi and Poggio, 2001; Poggio, 2006; Bruni et al., 2005). Within this research tradition a specific field on masculinity and work has been developed. One of the few scholars who has made an explicit attempt to construct a theoretical model that grasps how gender and safety are practiced in on-going work situations is Silvia Gherardi (2006, 72f). Another important example from masculinity research which combines gender (masculinity) and safety is Maier and Messerschmidt (1998), who analyzed the Challenger accident and demonstrated how competing masculinities led to disastrous decisions. They argue that 'a deeper understanding of the way in which men attempt to "do" and "preserve" their masculinity has profound implications for the creation – and prevention – of organizational crises' (1998, p. 339) – one such crisis being work related accidents. However, insights about risk and safety practice are seldom combined with insights from gender and masculinity with rare exceptions, such as the highly recommendable work by Ely and Meyerson (2010).

In this article we outline a theoretical framework for applying a gender perspective on safety research. We emphasize that we understand gender as a social and socio-cultural phenomenon, and that the article focuses on gender as a social category, i.e. not as biological sex. Thus, we do not discuss whether differences in average height, strength, weight etc. between biological women and men could be important parameters for understanding differences in

the prevalence of work-related accidents among men. We consider these biological differences to fall outside the purpose of this article. The social approach to gender also means that we are interested in gender as a dimension of identity – sometimes in interplay with other dimensions – and in the gendered perceptions and norms which at least in part form and shape actors' behavior. It furthermore means that we understand gender as socially defined and contested and therefore we do not assume that masculinity (or femininity) are a set of stable traits, although it is perhaps possible to pinpoint traits that are *considered* masculine in many contemporary social contexts (dominance, physical strength, courage, persistence, steadfastness, stoicism, aggressiveness etc.). We also emphasize that our focus is on work-related accidents *as a human practice gone wrong*. We thus argue that interventions that take gender and masculinity into account will have a better chance of altering practices and thereby reducing the number of work-related accidents.

In addition to filling an important theoretical gap in safety research, we suggest that strengthening gender as a theoretical aspect can inform two somewhat overlapping current debates in safety studies. (1) Theoretical considerations about masculinity and gender can inform the current trend towards focusing on power in safety research. A focus on power implies understanding how power and sometimes counter-power is intertwined with attempts to change safety culture (cf. Antonsen, 2009a). As we will argue below, different forms of masculinities are enacted in power relations, just as masculinity can be at stake in practices of counter-power. (2) Some strands of theories about gender and masculinity resonate well with critiques of an understanding of organizational culture (e.g. Smircich, 1983; Fitzgerald, 1988; Ackroyd and Crowdy, 1990; Martin, 2002) or safety culture as an easily managed variable (Haukelid, 2008; Antonsen, 2009b; Hale and Hovden, 1998; Hale, 2000; Richter and Koch, 2004). In accordance with such perspectives organizational cultures can sometimes be understood as gendered in a way that reflects gender perceptions and gender normativities of overall society, which makes them relatively difficult to manipulate. Furthermore, one reason that safety culture can be difficult to alter is that actors throughout their life trajectories have been socialized into a gender identity with a certain *inertia*. Existing research suggests that successful change towards safer work must take gender into consideration (Abrahamsson and Somerville, 2007).[3]

As argued above there are several reasons why gender and masculinity could be considered central to safety research. The aim of this article is to introduce theories of gender and masculinity to safety researchers and to outline how these analytical categories can improve and enrich future analysis. The article is structured as follows: In the first part we introduce four relevant strands of gender and masculinity theory. In the second part we illustrate the analytical potential of this theoretical framework by reinterpreting two existing ethnographic studies which have been published in *Safety Science*. Finally, in the conclusion, we discuss the potentials of adding a gender perspective to safety research.

2. Theories of gender and masculinities

In this section we outline four strands of gender and masculinity theory relevant to studies of safety. The first position is selected

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[3] Ely and Meyerson (2010) found an association in the opposite direction, i.e. that changes in safety culture lead to changes in masculinity. This finding points towards a dialectic relationship which we acknowledge, although this article is primarily interested in gender and masculinity as independent variables. However, it is important to take into account the ramifications of attempts to change the safety culture at work places. Because of the gendered nature of the safety culture the opposition towards change exhibited by the employees may have their origin in the perceived consequences of the safety changes for their gender identity and notions of masculinity even if the changes do not have this as an explicit goal.

because it is useful for understanding differences between mascu-linities: The theory of hegemonic masculinity, which has a double perspective underlining the privileged and dominant position of men in general in relation to women as well as the dominance of some socially legitimate and normative masculinities in relation to other more subordinated masculinities. The next two theories of gender and masculinity represent a classic discussion of how to understand gender as a social category. The first of these classic positions is represented by Bourdieu, who through the concept of habitus conceptualizes gender and masculinity as a relatively sta-ble category closely linked to social structures and power relations. The next position is represented by interactional gender theory, which emphasizes that gender is 'done' or performed in interac-tions. The focus here is on gender as a more unstable category, but constructed in relation to existing structures, e.g. discourses. Finally, the notion of intersectionality is included because it high-lights the interplay between different social categories such as gen-der, class, ethnicity and age.

2.1. Hegemonic masculinity

A theoretical strand which could turn out to be central to safety research is derived from the Australian gender and masculinity theorist Connell (1995), who offers a nuanced conceptualization of ideals of masculinity and struggles between different masculinities.

The central concept in Connell's (1995) analysis is hegemonic masculinity. The term hegemony is inspired by the work by classic Marxist theorist Antonio Gramsci and can be defined as a cultural form of dominance, which does not rely on overt use of power or physical violence, but on cultural ascendancy and consent (Connell and Messerschmidt, 2005; see also Howson, 2008). Hegemonic masculinity thus has the power to dominate over other masculin-ities – and, according to Connell – over women. In a certain sense, hegemonic masculinity is a social phantasm, a socially shared authoritative understanding of the most valuable and legitimate form of masculinity in a specific context. In reality very few if any men can live up to this ideal, but hegemonic masculinity nev-ertheless regulates men's practices as they strive to live up to its inscribed ideals, e.g. courage in the face of risk and danger, demon-strations of physical prowess and possession of technical skills.

Hegemonic masculinity occupies a privileged position in a hierar-chy of masculinities. According to Connell (1995) other forms of masculinity such as complicit masculinities, marginalized masculin-ities and subordinate masculinities are positioned lower. They can be part of a political and structural struggle which eventually changes the content of the hegemonic masculinity. Connell and Messerschmidt (2005) furthermore stress that the concept of hege-monic masculinity can be used on different levels, from countries and regions to local contexts such as schools or workplaces Mess-erschmidt, 2012). It can thus be meaningfully employed on organi-zation, work place or on an entire industry level. In other words, it is important to stress that these ideals are not determined once and for all and that it cannot be taken for granted that the same form of masculinity is hegemonic across time and space. On the contrary, the ideals that obtain hegemonic status can be context specific.

Although Connell's distinction between hegemonic and other forms of masculinity does not translate easily into safety research, we consider the idea of different forms for masculinity and a po-tential hierarchy between them as central to the research field. Connell thus offers conceptual tools for analyzing which forms of masculinity are dominant and which forms are challenged or maybe dominated. This is important because different masculini-ties can be engaged in struggles between different ways of practic-ing masculinity with different safety implications. We thus argue that focusing on competition and conflict between different forms

of masculinities and their relation to working safe may be a key to analyzing power relations and safety cultures in work places, orga-nizations or industries. To illustrate the implications in a more con-crete way we might think about competition and conflict between relatively traditional forms of masculinity which emphasize phys-ical strength and courage and other masculinities which empha-size traits such as theoretical knowledge, technological skill or professional training. Such struggles may have a direct influence on work place behavior and therefore have important safety impli-cations. An example may be derived from Boyle's (2002) work on masculinity within an Australian emergency services organization. Here Boyle identifies 5 forms of masculinity which are competing for legitimacy within the organization: (1) militarized, (2) manage-rial, (3) techno (oriented towards technology and education), (4) heroic/community oriented and (5) nurturing/caring. These mas-culinities all point towards different ways of being a man and there are struggles in the organization regarding which of these is going to prevail. For instance the older officers tend to disregard the tech-nologically oriented and typically younger and more educated adherents of techno masculinity as not real men (Boyle, 2002). Although Boyle does not address this we consider it plausible that these forms of masculinity also have different safety implications. The militarized masculinity may consider caring for one's safety as feminine and may thus be at odds with many types of safety inter-ventions. On the contrary the techno masculinity may accept – perhaps even appreciate – safety interventions as long as these are based on the mastering of technology. The overall long term safety culture of the organization is therefore at least in part dependent on the struggle between these masculinities. Another example is offered by Abrahamsson and Somerville's work on mas-culinity and safety among male workers in an Australian coal mine. According to Abrahamsson and Somerville (2007: 57) the safety culture among these workers had traditionally been characterized by a hegemonic form of masculinity which emphasized macho attitudes, and ridiculed wearing protective gear or accepting help from others when lifting, etc. The fear of being seen as unmanly therefore shaped the work practice of the workers. At the time of the study this form of masculinity was being challenged by a new more safety aware form of masculinity. The new form pro-moted by trainers at the mines rescue station argues that "*it is is stupid to be macho*" (Abrahamsson and Somerville, 2007, 60). Abra-hamsson & Somerville does not give a clear cut conclusion as to whether this new safety oriented masculinity succeeds in the struggle against the older hegemonic unsafe masculinity. However they stress that to the extent the new form of masculinity prevails, it has to be linked to larger societal discourses about caring for one's body and also to be inscribed in the existing ideas about mas-culinity among the workers. Safe work thus needs to be redefined as masculine, and interventions need to take the workers mascu-linity into account, in order for safety interventions to succeed.

2.2. Gender as habitus

Pierre Bourdieu's scholarship has had an enormous influence on debates in most parts of social science – including feminist re-search (see Adkins and Skeggs, 2004). However, with few excep-tions (for instance Njå and Nesvåg, 2007; Haukelid, 2008; Richter and Koch, 2004) his work is absent in safety research.

The concept of habitus is central to Bourdieu's understanding of gender. He defines habitus in a number of ways, though generally as 'systems of durable, transportable dispositions, structured struc-tures predisposed to function as structuring structures' (Bourdieu, 1977, 72, 1990a, 53), which are embodied through participation in the social world. With structured structures Bourdieu points out that human beings are socialized in a way that produces system-atic similarities among agents from similar social conditions. With

structuring structures he points to the way the agents as the very consequence of socialization, will have a tendency to behave and perceive the world in ways that systematically reproduces the structures that produced the habitus in the first place.[4] Habitus is embodied in social history, thus 'the body is in the social world but the social world is also in the body' (Bourdieu, 1990b, 90). Hence, according to Bourdieu, actors are shaped by social (material and symbolic) conditions as these are embodied and transformed by the habitus into ways of being practically engaged in the world. This also means that we are socialized through the body to certain ways of doing things.

Two aspects of Bourdieu's concept of habitus are central to this article. Firstly habitus is always gendered, i.e. women and men are socialized differently on a bodily level (Bourdieu, 2001). Through their life trajectories human beings learn to act in certain ways based on earlier experiences of how others have responded to their actions, and this experience is embodied in habitus as a relatively stable tendency to act in certain ways. Actors therefore, according to Bourdieu, act in a gendered way. Men learn to act in ways that are socially recognized as masculine, and these cultural scripts are embodied as part of the habitus. However, these embodied perceptions of masculinity can be problematic:

> Male privilege is also a trap, and it has its negative side in the permanent tension and contention [...] imposed on every man by the duty to assert his manliness in all circumstances [...] Some forms of 'courage' [...] which, particularly in the construction industry [...] encourage or force men to flout safety measures and to deny or defy danger with reckless behavior that leads to many accidents [...] spring, paradoxically, from the fear of losing the respect or admiration of the group, of 'losing face' in front of one's 'mates' and being relegated to the typically female category of 'wimps', 'girlies', 'fairies', etc.
> [(Bourdieu, 2001, 50, 52)]

In a social context that values masculine behavior it can be difficult to go against the current because it means, would Bourdieu hold, loss of recognition as a man and of masculine gender identity.

Secondly the habitus contains a practical sense. Bourdieu is preoccupied with theorizing how a capacity for acting adequately is generated by the habitus (Bourdieu and Wacquant, 1992; Bourdieu, 1977, 2000). As a part of our bodily socialization and practical engagement with the world we learn to act in the world without having to constantly contemplate (Bourdieu and Wacquant, 1992, 130).

Combining the two aspects of habitus – that it is gendered and that it is geared towards practical engagement in the world – has important implications for our argument. As we shall see in Section 3.1 men, especially if employed in a male-dominated environment, learn throughout their lives – and through their careers at specific work places – to act in and appreciate practices that are *simultaneously* practically reasonable *and* recognizably masculine. They become habitually dispositioned to a certain practice, which is both in a sense rational and gendered. From this point we can derive the theoretical hypothesis that gendered habitual dispositions for certain types of practice may explain masculine practices that can be related to work-related accidents. A hypothetical example of this would be apprentices who gradually learn to accept that minor injuries and bruises are part and parcel of becoming a 'real' (masculine) craftsman and who for that reason may not even recognize these bruises as injuries when asked about it. Bourdieu considers such dispositions relatively stable and speaks of habitual *inertia* (Bourdieu, 2000). The theoretical claim that habitus is relatively stable is based on empirical observations of the stability

of for instance cultural taste, which Bourdieu (1984) considers a habitual disposition, but also grounded in inspiration from the philosophical and theoretical tradition of phenomenology of the body (Merleau-Ponty, 2005). As practice rests on deeply embodied dispositions, learning to act and perceive in a new way is a slow process. This point contrasts interactional understandings of gender identities as situational and negotiable outlined below. Bourdieu's point about the inertia of habitus may thus inform the debate about the difficulties involved in changing safety culture. Moreover, the habitus is not formed from the moment a person enters a work place; it is also shaped by experiences earlier in life and gendered practices at a work place are influenced by circumstances prior to and outside the organization.

2.3. An interactional approach: 'Doing gender'

The 'doing gender' approach is primarily rooted in symbolic interactionism and ethnomethodology, but the performative perspective on gender has been picked up and developed also within poststructuralist feminism (Butler, 1990); a tradition which emphasizes language, discourse, power and instability in its understanding of gender[5]. Central to this tradition is West and Zimmerman's (1987) work on *doing gender* and West and Fenstermaker's (1995) work on *doing difference*. The authors outline an understanding of gender and other social differences, which is inspired by Garfinkel's (1967) ethnomethodology and Goffman's (1976, 1977) dramaturgical model for gender analysis. 'Doing gender involves a complex of socially guided perceptual, interactional, and micropolitical activities that cast particular pursuits as expressions of masculine and feminine "natures"' (West and Zimmerman, 1987, 126). The key argument is that gender is an interactional accomplishment. When actors engage in social interactions they are met with specific gendered normative expectations of how to act, speak, etc. Thus, gender is constantly produced and reproduced when actors perform gender in a way that is framed by these social norms. Gender is therefore the product of conformity to interactional expectations, not an overall social structure that exists independently of interactions.

Studies in the 'doing gender in organizations' tradition mainly focus on how the gender relation and hierarchy is maintained and reproduced – and changed – in the realm of work (Kvande, 1995, 2007). Central to the interactionist conceptions of gender are the on-going performances, negotiations and validations of gender identity through a context-specific repertoire of gender-specific actions. Hence, from this perspective we should not think of

> masculinity as a characteristic that one brings uniformly to each and every encounter ... [rather] gender and masculinity may be understood as part of a presentation of self, something which is negotiated, implicitly or explicitly over a whole range of situations ... In short, we should think of 'doing masculinities' rather than of 'being masculine' (Morgan, 1992, 47 cited in Beynon, 2002, 145).

This also harbors the understanding that gender does not exist a priori, but is created in interactions – and thereby change becomes possible. Where Bourdieu underlines the stability in gender, change may here also become visible: 'The doing gender in organizations perspective enables us to see variations over time and different contexts. (...) Gender is seen as a result but not determined once and for all' (Kvande, 2007, 41). The interactional approach thus points to the relative instability of gender. It suggests that

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[4] Habitus is defined in different ways throughout Bourdieu's scholarship (for genealogies see Bourdieu, 1990b, 10–15; Swartz, 1997, chapter 5; Callewaert, 2000).

[5] On the difference between the interactionist and the poststructuralist perspective see Kelan (2010). The poststructural and discursive approaches (e.g. Butler 1990), including studies of language, have been especially effective in showing how gender is constantly being created, reproduced – and changed – in people's interactions (Kelan, 2010: 180).

perceptions of gender and masculinity may be negotiated and redefined and that alternative and more safety oriented masculine identities can sometimes be offered. By implication, negotiating and defining alternative masculine positions may be central to safety interventions. Furthermore, as mentioned above, safety interventions may work better if they are not directly in conflict with masculinity, but rather attempt to redefine what is considered masculine (Abrahamsson and Somerville, 2007). The interactional perspective suggests, however, that there are limits to such redefinitions as the perspective has a central structural element: 'it is individuals who "do" gender. But it is a situated doing, carried out in the virtual or real presence of others' (West and Zimmerman, 1987, 126). Thus, gender behavior or performativities are 'done' in relation to existing ideals and discourses in society and organizations, and non-conformist ways of 'doing gender' sometimes provoke harsh social sanctions.

From such a perspective work place normativities and discourses are crucial for understanding practices and consequently why accidents happen. One can think of work carried out by men as involving a performance of gender. That is, when men work they not only produce a good or service, they also produce masculinity. In the words of Ely and Meyerson (2010, 4) 'the workplace can thus be a proving ground for masculinity'. For instance, when a man carries heavy burdens, he performs masculinity and thereby becomes socio-culturally intelligible as a man. Local and situational discourses and normativities call upon men to perform masculinities in certain ways – as Morgan argues: 'work places set limits for the range of masculinities that might be legitimately developed' (Morgan, 1992: 96). Thus, failure to live up to work place expectations can be met with social sanctions.

2.4. Intersectionality

The fourth theoretical strand relevant to safety research is intersectionality, a theoretical term which denotes the mutually constitutive nature of social categories like class, gender, race and ethnicity. By mutually constitutive we mean that these social categories shape each other in mutual interplay. This is perhaps best illustrated by considering the interplay between class and gender: Somewhat simplified we might say that working class men employed with manual labor, have access to basing their masculinity on physical strength but are also expected not to appear weak or cowardly. In other words working class men who are not rich in cultural or economic capital have ways of constructing their masculinity that do not rely on possession of such capital. They often take pride in their bodies and may consider other men whose work does not involve display of physical strength less masculine (Prieur, 1998). In contrast, men in academia can base masculinity on theoretical knowledge and academic merit. In other words the very definition of what is considered masculine can be dependent on class.

The notion of intersectionality was originally coined by black feminist scholar Kimberle Crenshaw, 1989, 1991 to highlight the specificities involved in understanding violence towards black women and has roots in radical black feminism (such as Collins, 1990). It has been discussed whether intersectionality concerns only specific marginalized groups such as minority women (i.e. is context specific) or whether it can be considered a theoretical tool for understanding complex social differentiation in general (Nash, 2008; Hancock, 2007a,b; Choo and Ferree, 2010). We agree with the latter position since we do not consider it feasible to argue, for instance, that class shapes gender any less among high class men than among socially deprived women. Hence we consider the concept useful in research contexts that include both marginalized and privileged groups (Jensen and Christensen, 2011).

In the original American debate intersectionality was characterized by a relatively strong emphasis on structural power relations, whereas the British debate focused more on constructions of identities. When the concept was adopted by sociologists and political scientists in Scandinavia they emphasized multi-level intersectional analysis of the interplay between structures and institutions at the macro-level, organizations at the meso-level, and identities and everyday practice at the micro-level (Christensen and Jensen, 2012, 147).

Consequently the analytical relevance for studying the relation between gender, masculinity and safety through the concept of intersectionality lies in the perspective that masculinity is constituted in interplay with other categories like class, age and ethnicity – and that this takes place on different levels. The concept can also be relevant for understanding competition and conflict between masculinities. It is important for safety research to understand how conflicts between different masculinities, sometimes with different safety implications, can also be conflicts between different class positions (or age groups, ethnicities, etc.). Hence struggles between managers and shop floor workers in antagonistic organizations can have both class and gender dimensions. Maintaining a relatively traditional working class masculinity based in strength and courage (perhaps resulting in unsafe work) may *sometimes* be a gendered way to express working class autonomy.

3. Re-interpretation: safety research in a gender perspective

In this section we re-interpret two examples of existing ethnographic safety research, which have been published in Safety Science, to illustrate how gender and masculinity can be crucial for understanding the practices that lead to work-related accidents. Ethnographies are chosen because publications of research based on this method often contain detailed descriptions and excerpts of interviews and field notes which allow for reinterpretation. Methodologically we have attempted to read the data presented in the ethnographies through the four theoretical perspectives outlined above. An obvious limitation to such re-interpretations is that we only have access to the small amount of data the authors selected for inclusion in their articles. This means that we cannot know whether an analysis of the whole body of data of each ethnography would support our analysis. We can only say that the limited data we have access to seem to imply that adding a gender perspective could provide fruitful insights. Furthermore we stress the risks of hindsight interpretation. Such interpretation runs the risk of a-posteriori superimposing a theoretical approach on the collected data, in a way which rarely allows for falsification – especially not if the theoretical approach is broad and flexible as is certainly the case here. Nevertheless we maintain that the reinterpretations below render it at least plausible that adding a gender perspective could be fruitful. Finally we emphasize that we did not select these studies because they are problematic, inadequate or lacking. On the contrary, they were chosen because they present outstanding work which inspires further thinking.

3.1. Gender, safety and seamanship

The first article we re-interpret is Knudsen's (2009) *Paperwork at the service of safety? Workers' reluctance against written procedures exemplified by the concept of 'seamanship'*. The case of seamanship is interesting because seamanship and the challenges of the sea have always been associated with masculinity (Power, 2005, 2008; King, 2007). Working as a seaman remains a highly male dominated occupational field and all but one of Knudsen's 100 interviewees are male (Knudsen, 2009, 296).

Knudsen's key argument is that seamen possess a complex phronetic – embodied, experience-based and practical – understanding of risk and safety at sea and often break written rules

because they are at odds with their phronetic knowledge. The seamen are opposed to the introduction of written rules because these challenge their phronetic understanding of seamanship, and perhaps also – we suggest – because the rules are perceived as a challenge to their specific form of masculinity.

According to Knudsen (2009, 297) 'the seamen's aversion against the introduction of new rules and demand on written procedures can be understood as a reaction to what they experience as enhanced control, mistrust and disrespect of their seamanship'. Knudsen furthermore informs us that some of the seamen object to the paperwork because they 'experience that the form of control they are subjected to prompts them to pay more attention to the form than to the content of safety rules' (Knudsen 2009, 299).

Consequently the seamen do not agree that these written procedures are likely to enhance safety at sea. This distrust should not be disregarded as irrelevant. However one possible interpretation of the distrust could be that it reflects a very basic incompatibility between intellectual/theoretical work and at least some forms of working class masculinity[6].

Here, an intersectional perspective could be useful as it would add the intersection between class and gender and enable an analytical grasp of this conflict as a conflict between different class specific forms of masculinity. Ethnicity is also at play in Knudsen's (2009, 300) study as there seems to be some level of conflict between Danish and non-Danish seamen. This might be understood as a conflict between different configurations of masculinity, class, and ethnicity in the sense that the masculinities of the Danish seamen are challenged not only by the introduction of new written procedures but also by the presence of non-Danish seamen. In this interpretation the presence of non-Danish seamen renders the interchangeability of the Danish seamen and thereby their dependency on a trade in which they have invested their masculine identity visible. Knudsen does however not present data that allow a full investigation of the validity of such an interpretation.

Knudsen's article constitutes a good basis for an analysis of the interplay between gender, class, and to some degree ethnicity. It illustrates how suggested new ways of carrying out seaman practice are experienced as disrespectful and infantilizing, 'They have forgotten that we are professionals'; 'They treat us like children'; 'It is paternalism toward capable people' (Knudsen, 2009, 298). The seamen have practical knowledge, a collectively shared understanding of seamanship and – we suggest – have invested in a strong masculine identity during the years at sea. Following Bourdieu we might add that the years at sea have produced a habitus which is both gendered in a class specific way and capable of offering adequate practical responses to the challenges of sailing. These practices and identities are disregarded by – we are not told, but it is reasonable to assume – male representatives from the authorities, who through 'paper knowledge' – a form of knowledge that some working class men regard as inferior and feminine – instruct the seamen how to do *their* job; a job the seamen gain male dignity by mastering. While we do not argue that these conflicts are reducible to questions of masculinity, we do suggest that adding a gender perspective can increase our understanding of the mechanisms involved. Consequently we suggest that the introduction of paperwork would not be perceived as such a large threat if the seamen had had a feminine identity. The study thus illustrates how the threat of potentially losing one's masculine identity can be an obstacle to changes intended to enhance safety. It also touches

upon how conflicts regarding safety can be understood as conflicts between competing masculinities.

3.2. Gender, safety and oil drilling

The second study is Haukelid's (2008) anthropological work on safety culture on oil drilling rigs. Haukelid (2008, p. 418–423) outlines a four stage history of oil drilling in the North Sea, with four different cultural orientations towards risk and safety:

- 'Texas' (1966–1980): Wild and rough "macho" culture with many accidents – but also great pride in doing a good job. Culminated in 1980 with the Alexander Kielland disaster.
- 'The Great Change' (1980–1990): Implementation of the internal control reform and other safety measures substantially reduced the number of accidents due to new technology, committed leadership and employee participation.
- 'The Systems' (1990–2000): Introduction of comprehensive systems like ISRS, SSS, SMS and DuPont. The trust in the 'systems' breaks down in the late 1990s with low oil prices and increased risk level.
- 'The Cultural Solution' (2000-present): Safety Culture is the new concept. Many different measures are introduced with varying success. (Haukelid, 2008, 419)

Interestingly, Haukelid's characterization of the cultural form as "macho" explicitly acknowledges the masculine nature of the original 'Texas' rig culture. However, Haukelid does not use a gender perspective in his analysis. Through a gender perspective, though, the rig culture is clearly built around conventional masculine practices:

Accidents are, of course, undesirable, but they can also be important in cultural and identity formation. Broken, crushed, and severed fingers and so-called 'blue-nails' were associated with work on a drill crew. The accidents were part of the 'roughneck' identity, and for many, such minor accidents were a badge of honor, and 'part of the game.' Workers were constantly reminded of accidents, either because they were frequent or through stories, myths and symbols.

[(Haukelid, 2008, 419)]

Such culture was reinforced by a strong socialization process:

On 'Texas', all workers knew the assumptions that governed their job performance. The job had to be done as fast as possible and a lost finger or two did not matter that much. An effective socialization process led the 'newcomers' to learn and accept these 'assumptions' as true. The reason for this is simple enough: only those who accepted the values were allowed to stay.

[(Haukelid, 2008, 419)]

This process may also read as 'a gendering practice' – in Martin's (2003) terminology – where the newcomers are socialized into a masculine logic, or as a process of shaping and forming the habitus towards gendered ways of doing the job in Bourdieu's terminology. We could also say a masculinity which did not imply safe work was hegemonic on the oil rigs at this point in time. In the next stage, after a catastrophe in 1980, technological and structural safety-enhancing changes begun. New rigs were disparaged as

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[6] Many sociological studies emphasize how male manual workers see practice as superior to theory or intellectual work. Female manual workers may share this conception and might also be critical towards theory and paperwork. However for male manual workers more is at stake since manual work is related *both* to masculinity and to working class pride (Willis, 1978, 1979; Somerville, 2006, 43; Somerville and Lloyd, 2006, 283).

'Welfare' and the roughnecks who worked on 'Welfare' were ridiculed as 'softnecks'. 'The roughnecks were convinced that new technology and a slower work pace were making the work too easy' (Haukelid, 2008, 420). Hence changes in gendered socio-cultural work identity do not come about easily, 'the "Texas-culture" and their values, norms, assumptions and tacit knowledge were resistant to change' Haukelid, 2008. Here, Pierre Bourdieu's theory of the inertia of habitus can explain the data presented by Haukelid. Hence Bourdieu would argue that the socialization into certain masculine practices is embodied and therefore can only be changed gradually. Moreover, the accident rate did not drop until a further set of safety measures were introduced. By the end of 1980s 'the struggle started to pay off' and a safety culture gradually emerged. We could understand that as another form of work practice finally being embodied into the habitus shared by most workers, or in Connell's terms as a new and more safety oriented masculinity competing with the unsafe masculinity and finally prevailing. Haukelid (2008, 423) concludes that today 'safety finally has become an important part of the tacit knowledge in drilling'. But

> Despite these improvements, it is important to keep in mind that not all the drilling rigs have good safety results, and the industry still experience serious accidents caused by technology and design, bad management and stress among the workers. *Some roughnecks are still risk takers and some hesitate to visit the medic for smaller injuries.*
>
> [(Haukelid, 2008, 423, italics added)]

The safety culture thus remains ambiguous. The working environment has become safer, but some roughnecks remain rough and reliant on conventional masculine ideals. This points to the stability of habitus and gendered norms of what constitutes appropriate practice. Intersectional analysis would furthermore suggest that roughness is related to the interplay between gender and class resistance, i.e, what can be observed is the enactment of a specific form for working class related masculinity in an act of resistance against management control and dominance. Could it be that management faces the same forms of masculine resistance from the roughnecks today as they did in the 1980s? Such demonstrations of physical toughness could be read as a way of doing masculinity, a statement of symbolic resistance or a last bastion of masculine pride in a society where work, as society in general, is becoming increasingly dependent on knowledge and highly technologically advanced equipment.

4. Conclusion

The theories outlined above as well as the re-interpretation of the selected ethnographies suggest, that gendering safety research has implications for safety research and intervention attempts. We must however again stress the dangers of hindsight interpretation. Consequently we have not in any meaningful way *proven* that gender and masculinity are important to safety research, however we do maintain that the theoretical considerations advanced and their applicability to the ethnographic data *renders it least plausible* that this might very well be the case. Strictly speaking what we advance is therefore a theoretically and empirically qualified hypothesis which must be tested though systematic qualitative and quantitative investigation.

Nevertheless the overall argument of this article suggests that the performance of masculinities in accordance with social norms can result in work-related accidents. Pride in bodily strength is central to some forms of masculinities and may prevent male workers from asking for help, for instance when lifting heavy burdens (or subjecting them to informal social sanctions if they

do ask for help) and risk taking can in some social contexts be a way of performing masculinity.

Struggles between different masculinities – and here we mean different socially defined ways of thinking of oneself as a man as well as performing to the outside world that one is a man – could turn out to be central to understanding organizational cultures, and conflicts between subgroups or colleagues within an organization may often have a gendered aspect. Furthermore such different masculinities can emphasize and understand different traits or forms of practice as masculine and thus have very different implications for work safety. We hope this article will spur a debate in the research field and we suggest that future research on safety and work-related accidents take gender and masculinity into account thereby producing more solid knowledge of the possible importance of these social phenomena. Regardless of the limited scope of our re-interpretations the lack of interest in gender theory is puzzling and we suggest that gender and masculinity are included in safety research as relevant categories. The field of safety research seems to be in need of gender sensitive studies of everyday work life including its risks and hazards, as well as gender sensitive studies of attempts to change that very work life. Such studies should be carried out in order to open up the research field and understand when and how gender and masculinity may be important. It is however also our point that – provided more rigorously executed research confirms the relevance – a gender perspective may help us understand why interventions to increase safety sometimes do not succeed, but also how and why they sometimes succeed.

Thinking about gender and masculinities could therefore turn out to be central to designing interventions and understanding obstacles to changes in safety cultures. As noted in the introduction, the idea that safety culture is easily manipulated has been subject to critique. From a gender perspective we can understand resistance to the attempts by management, or external consultants, to change the safety culture as a struggle between different class specific masculinities. In other words, male workers who have invested themselves in forms of masculinity that rely on bodily strength may feel their working class related masculinity threatened by such measures. Masculinity may be at stake in such struggles, and masculinity may be played out in attempts to resist: As our re-interpretations of Knudsen's and Haukelid's data suggest, male 'roughnecks' and seamen may consider managers or consultants feminine pen pushers – unable to do a real man's work – and emphasize their own masculinity as an oppositional practice.

Consequently changes can be difficult to implement because male workers are invested in masculine identities. At the same time gendered practices in an organization are closely related to overall societal gendered practices and norms. To the extent workers feel that their identity as men is threatened and resist attempts at change, the result may even be backlash in the sense that workers practice a more traditional and crude form of masculinity. This is illustrated by Haukelid, who informs us that even today some roughnecks remain rough and reliant on conventional masculine ideals. Backlash is not a given, however. If alternative masculine positions are offered, change may be successful. This means that provided future research supports the hypothesis advanced in this article safety interventions should take into account that male manual workers are likely to be invested in a masculine identity which they feel uneasy about giving up in return for safer work. Thus from a gender perspective safety promotion may have a better chance of succeeding if it does not request male workers to give up their specific form of masculinity, but rather seeks to facilitate a change in safety procedures and safe practices that are in tune with the gender practices of the particular workplace. Safe work somehow has to be redefined not as being at odds with masculinity, but as another, perhaps smarter way of being masculine. This is more

easily done when the safety interventions offers new ways of implementing safety procedures that complement or draw on the norms and ideals of masculinity already present at the work site (Abrahamsson and Somerville, 2007). Safety intervention might thus be more successful by paying attention to gender in the particular occupational culture. This article can thus be read as call for further research with the possible outcome of improving not only our theoretical understanding of safety but also potentially designing more suitable safety interventions.

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