



## The meaning of risk-taking – key concepts and dimensions

Jens O. Zinn

To cite this article: Jens O. Zinn (2017): The meaning of risk-taking – key concepts and dimensions, Journal of Risk Research, DOI: [10.1080/13669877.2017.1351465](https://doi.org/10.1080/13669877.2017.1351465)

To link to this article: <https://doi.org/10.1080/13669877.2017.1351465>



© 2017 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 14 Jul 2017.



Submit your article to this journal [↗](#)



Article views: 6588



View Crossmark data [↗](#)

# The meaning of risk-taking – key concepts and dimensions

Jens O. Zinn<sup>a,b</sup> 

<sup>a</sup>School of Social and Political Sciences, University of Melbourne, Parkville, Australia; <sup>b</sup>Risk and Crisis Research Centre, Mid-Sweden University, Östersund, Sweden

## ABSTRACT

Dealing with and taking risks are central issues of current societies which had been characterised by heightened debates and conflicts about risk (Beck, Giddens). Even though there is good knowledge available, policies and strategies to reduce people's risk-taking are often less successful than expected. Experts are puzzled about common people not following good advice presuming people's lack of understanding. While this might be true in many cases a growing body of research shows, rather than being merely ignorant or misinformed, people often have good knowledge when taking risks. A growing body of research provides knowledge about the complexities, dynamics and contradictions of people's risk-taking. However, there have been little attempts to systematise this body of knowledge. This article contributes to such an enterprise. It suggests distinguishing between different motives for risk-taking, different levels of control and a number of ways how reflexivity about risk is rooted in the social realm. It also explores how risk-taking is part of developing and protecting a valued identity. The article concludes, across different domains there is good evidence for how structural and cultural forces combine and shape risk-taking while people take risks to develop a valued identity and to protect it. Advancing expert's understanding of risk-taking and change people's risk-taking require considering and approaching the larger social contexts and individual risk practices in everyday life.

## ARTICLE HISTORY

Received 18 July 2016  
Accepted 23 March 2017

## KEYWORDS

Risk-taking; identity; theory

## 1. Introduction

Current societies have been characterised as *risk societies* where dealing with risk is a normal experience of everyday life (Beck 1992; Giddens 2000). In *risk societies* understanding people's perception, responses to and taking of risk is crucial to deal with rapid social, technological and environmental change and the side-effects of social advancement (Beck 1992, 2009). Risk communication, analysis, regulation and governance, as well as health promotion, disaster research and safety science – just to mention some of the major research branches – are engaged with optimising procedures and identifying and preventing risks turning into harm. The search for generalisable rules and patterns which could inform guidelines to improve people's engagement with risk is generating a growing body of approaches which, for example, provide risk knowledge in an accessible way (Gigerenzer 2010; Fischhoff and Kadavy 2011), influence the choice architecture of people's environment (Thaler and Sunstein 2009), change behaviour through social marketing (French 2011) and analyse and calculate factors that influence people's behaviour for a better allocation of resources (e.g. Fischhoff and Kadavy 2011; Fischhoff 2012).

**CONTACT** Jens O. Zinn  [jjinn@unimelb.edu.au](mailto:jjinn@unimelb.edu.au), [jensozinn@gmail.com](mailto:jensozinn@gmail.com)

© 2017 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.  
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

However, policy outcomes based on such research are often far less successful and efficient than expected. Some examples include reducing unsafe sexual practices among the poor and disadvantaged social groups (Higgins and Browne 2008), preventing youth from engaging in binge drinking (van Gemert et al. 2011; Degenhardt et al. 2013) and engaging people in flood protection measures (Harries 2008). Many scholars suggest that improving policy outcomes requires a better understanding of the complexity, volatility and diversity of the meaning and practices of risk in the social realm (e.g. Bunton, Green, and Mitchell 2004; Marston and King 2006). These studies approach people as knowledgeable actors who make sense of their (social) environment and take risks as part of managing a number of everyday challenges in a reasonable way.

These studies differ from approaches that conceptualise risk-taking as a need or drive (von Cube 1990), or an evolutionarily developed behavioural pattern (Greitemeyer, Kastenmüller, and Fischer 2013), or as characterising a particular developmental stage (Steinberg 2008). They also differ from approaches which emphasise the limits of the human brain to calculate risks properly (Tversky and Kahneman 1974) or the strengths of heuristics for efficient decision-making (Gigerenzer, Todd, and the ABC Research Group 2001). They do not explain risk-taking as part of one's personality either (Trimpop 1994).

Instead, they conceptualise risk phenomena as deeply rooted in social processes. This article focuses on this growing body of qualitative research which emphasises the need for detailed examination of how people negotiate and challenge structural and cultural conditions in everyday life (Zinn 2015, 103). Following an interpretivist perspective (Crotty 1998, 66ff.), which encompasses approaches such as phenomenology (A. Schütz), symbolic interactionism (G. H. Mead) and ethnomethodology (H. Garfinkel), this research focuses on reconstructing how individuals and social groups make sense of risk in everyday life. According to such research, understanding risk-taking requires examining how it is embedded in social institutions and processes such as building and protecting a meaningful identity, engaging in intimate relationships, securing a good income, making a valuable contribution to society, and building and continuing friendship relationships.

In social research, there is broad agreement that the social realm generates meaning about acceptable and unacceptable ways to deal with and take risks (Douglas and Wildavsky 1982; Douglas 1985). Social institutions provide narratives or social *forms* to make sense of the *modern risk paradox* which combines two desires in the notion of risk (Zinn 2016a): to prevent and minimise risk, and the insight that some advantages are only achievable when taking risks. At least three different strategies for dealing with risk can be distinguished (Zinn 2008, 2016b): *instrumental rationality* underpinned by (scientific) expert knowledge; *non-rational* strategies such as hope or faith; and *strategies in-between* such as trust, intuition and emotion which build on experience and tacit knowledge. These combine with other dimensions such as available resources, social power structures (e.g. gender, class), cultural values (e.g. motherhood, friendship) among others in what Horlick-Jones once called a *bricolage* (Horlick-Jones, Walls, and Kitinger 2007) that characterises *practical reasoning* (Horlick-Jones 2005) in expert and everyday decision-making.<sup>1</sup> As Bloor (1995) has noted such rationalities are dependent on concrete conditions in particular situations in which risks and gains are negotiated. They are socially *situated rationalities*.

Indeed, the body of research about these issues has grown in recent decades, and yet there have been few attempts to systematise its insights. The article aims to contribute to such an effort using an empirically grounded approach to suggest central dimensions of the ways in which people deal with the possible negative outcomes of their decisions. The article neither claims to provide a comprehensive overview of risk phenomena nor an empirically detached philosophical discussion of the nature of risk-taking. More modestly the article provides suggestions for key dimensions to structure the growing body of interpretivist research on risk-taking. Indeed, these suggestions are to some extent influenced by the author's long-term research on risk and risk-taking which influenced the perspective and choice of examples. Consequently, the article aims to encourage a lively discussion about key dimensions rather than to provide an all-embracing framework.

The article starts with some fundamental dimensions derived from common definitions of risk-taking. These are the *motives*, experience of *control* and *reflexivity* which characterise different ways that people

take risks. Furthermore, one's *identity* has been identified as a key explanatory variable for risk-taking that deviates from expert advice, whether it is a means *to develop* or *to protect* a valued *identity*. The article will conclude with some reflections that are intended to contribute to a critical approach to risk-taking.

Since the notion of risk-taking is central but contested in risk studies, it is necessary to be explicit about the understanding of risk-taking that underpins the article. It builds on Luhmann's (1993, 10f.) suggestion that the modern notion of risk encompass that 'certain advantages are to be gained only if something is at stake. ... It is a matter of a decision that, as can be foreseen, will be subsequently regretted if a loss that one had hoped to avert occurs.' However, since the meaning of risk is socially and subjectively framed, not every negative outcome of a decision is considered a risk, but a nuisance or inconvenience. As a result decision-making and risk-taking are not the same. Risk-taking requires that the possible negative outcomes are considered severe. Risk-taking also requires that not only positive but also negative outcomes have to be faced by the decision-maker. Accordingly, it does not make sense to speak about risk-taking when the decision-maker is not affected by the outcomes (which instead affect others). This could be called risk-making (for others) rather than risk-taking and follows a different logic.<sup>2</sup>

## 2. Key dimensions in risk-taking

A large body of research has shown that many people engage with and take risks consciously. Even when risk-taking might deviate from expert advice, people have some awareness that they are exposing themselves to possible harm. This is central to the interpretivist understanding of *risk-taking* which underpins this article and differs from risk-taking as *risk behaviour* which does not require a minimum level of awareness on the behalf of the risk taker (Zinn 2015). If awareness is lacking or knowledge highly inaccurate, education and information strategies might be more important for behavioural change, while many studies argue that when such strategies fail it is due to other factors guiding people's involvement with risk.

Common definitions of (voluntary) risk-taking can serve as a starting point for further systematising key dimensions of the concept. In their monograph *Risk-taking in Everyday Life* Tulloch and Lupton (2003, 10–11) defined voluntary risk-taking as an 'activity in which individuals engage, is perceived by them to be in some sense risky, but is undertaken deliberately and from choice.' The definition implies that at least two dimensions are crucial: a degree of *reflexivity* (or consciousness) that a risk is taken and a degree of *control* (or agency) which also provides the individual with an understanding of being in a decision-making situation and having agency. However, the notion of 'voluntary' is questionable for characterising risk-taking more generally since it is usually somehow shaped by social conditions (Zinn 2015). Consequently, the reasons for and *motives* of risk-taking vary quite a bit.

### 2.1. Motivation

In the following, *motives* are understood as general drivers of risk-taking. In contrast to theories which focus on the natural roots (genetic, biological) of motivation or interpret them as personality characteristics (e.g. Weiner 1980), this article focuses on *social motivation* as being shaped by the actual social context, social experiences and imagined futures. Motives are certainly more complex as outlined in the following. I tentatively distinguish only three very general motives in relation to risk which indicate a central difference within risk-studies: Risk as an *end in itself*, as a *means to an end*, and as a *response to vulnerability*. Risk-taking as an *end in itself* is characterised by the excitement of risk-taking being the dominant driver to take risks, such as in edgework (Lyng 1990, 2005) originally developed in the domain of high-risk leisure sports (e.g. BASE jumping, sky diving or ice-climbing). In contrast to other approaches, risk-taking is understood as an experience people value because of the positive experience of seeking a challenge and successfully mastering that challenge. In edgework the focus is on the exploration of one's limits (the edge) and to confirm one's skills and abilities which provide 'edgeworkers' with heightened feelings of autonomy, self-worth, meaning and confidence. Lyng (2005) was inspired

by the emerging field of cultural criminology and the work of Katz (1988) who suggested in *Seductions of Crime* that criminal behaviour is often not merely motivated by an expected (material) gain but can become an end in itself which provides identity, feelings of power and control among others.

In contrast, risk-taking as a *means to an end* is driven by a particular purpose. The purpose can vary quite a bit and might be complex, reaching from aiming for material gain to developing a valued identity. Indeed, researchers have shown that people more often engage in risk-taking for less self-oriented reasons than in edgework and their motivation is often rather complex (e.g. Lightfoot 1997; Tulloch and Lupton 2003; Roth 2015). For example, Roth (2015) in her study on aid work found that people who took part in aid work were aware of the risks but were willing to tolerate or manage them as they wanted to make a contribution to improving human well-being and valued the ways in which this contributed to feelings of self-worth and social esteem. It is important to recognise that people sometimes accept risks which are largely out of their control – as in aid-work – because they value an activity and what it does for society, viewing it as important and worth the risk. However, attitudes are shaped to different degrees by cultural and structural forces. Many people who end up in high-risk occupations are guided by social forces. For example, the large numbers of working class men ending up in soldiering are due to milieu specific values and structural pressure. Indeed, from an expert's perspective these young men might underestimate the risks and replace or cope with them via beliefs and feelings of invulnerability (Zinn 2011, 247).

Hayenhjelm (2006) suggested distinguishing another pattern of risk-taking. People sometimes take high risks because they are in an unbearable situation (materially, physically or normatively) or they are put under pressure and do not have the resources to resist. In such cases, people take risks in *response to vulnerability* (Hayenhjelm 2006) when agency becomes minimal or is characterised by juggling competing high risks which are largely beyond one's control. In this situation risk-taking is a more or less desperate response to existential suffering. There are plenty of examples, such as refugees paying people smugglers to enter high-risk journeys (e.g. Hernández-Carretero and Carling 2012); the illegal selling of one's kidney to pay back existing debts, and illegal and unsafe abortion, often self-induced or assisted by non-medical staff; or women exploited in sex-trafficking to avoid endangering their relatives at home (Wallman 2001). These risks are 'taken because there are no positive alternatives to them and the choice is perceived as having an element of hope' (Hayenhjelm 2006). The risk-taker does not see any other desirable alternatives and feels pressed to make a decision in a situation that is experienced as unbearable.

## 2.2. Control

Control is a crucial concept in many disciplines, such as 'locus of control' in personality psychology or 'self-efficacy' in learning theory (e.g. Lefcourt 1982; Bandura 1997; Ajzen 2002). In sociology the ability to act (agency) and to take risks requires a minimum of control of self and social context. However, risk-taking plays different roles in one's life depending on the degree of control one has or believes they have. People might exercise control because they (believe they) have control and repeatedly confirm the experience of control through risk-taking. Often people do not have control and taking a risk is part of an attempt to regain control. Finally, many studies show that people often 'take risks' because they are in a vulnerable situation and have no alternative other than 'to take' high risks.

Accordingly, the reasons why people take risks are loosely coupled with the level of *control* they (feel they) have over their life. Research shows, for people who are in full control and have agency, risk-taking is part of further developing their identity, to extend their abilities and sphere of influence. Risk-taking provides them with a powerful, positive identity (Tulloch and Lupton 2003; Lyng 2005). In the case of edgework control originally referred to the physical environment people master with their skills.

Risk-taking becomes more complicated in social relationships when others are involved in risk practices. Under such conditions the decision to trust can be crucial (Luhmann 1988). Trust expresses a lack of knowledge and control and has been characterised as a 'leap of faith' (Möllering 2006). Since trust is a defining element of social relationships, it tends to compromise rationalist approaches to risk-taking.

For example, summarising their research on safe sex practices, Bourne and Robson (2009, 290) show how risk and trust are tightly connected in romantic notions of love. Low compliance with expert advice for safe sex practices could be explained with the notion that it runs counter to the development of close intimate relationships where cessation of condom use is considered a symbolic marker for higher commitment and an exclusive relationship. It is a demonstration of trust but also an expression of the desire for a deeper intimate relationship. Consequently, when partners feel safer in a relationship, safe sex practices decrease since they contradict the notion of a deep and trustful intimate relationship. Thus, when negotiating sexual practices in intimate relationships, the scientific rationality of the biomedical approach of risk prevention and minimisation loses influence while partners increasingly rely on everyday practices of reasonable decision-making utilising intuition, trust and emotions when dealing with the uncertainties involved in social relationships (Zinn 2008).<sup>3</sup>

More often than not people's control over their life is restricted to an extent that people take risks to protect it. Research on safe sex practices is a good example to show how risk-taking practices are patterned by intersecting, deeper socio-structural forces. Higgins and Browne (2008) argue that risk-taking is a balancing act between different gains and risks enacted through social ideologies. They form this argument on the basis of their study with 36 women and men from different class backgrounds, entitled *How 'Doing' Class and Gender Influences Sexual Risk-taking*. They explored the common observation that the poor and working class are disproportionately affected by the risk of unintended pregnancy and sexually transmitted infections. Their study showed, even though middle class and working class women largely agreed on the stronger sexual appetites of men, they attributed it to different forces. The middle class women were more likely to attribute it to social factors while the poor and working class respondents naturalised male sexuality as a physiologically irrepressible force (Higgins and Browne 2008, 239). This also affects the use of contraception: 'the socially disadvantaged are not merely "at risk" for worse sexual health outcomes; rather, sexual situations are classed and gendered in a way in which contraception is not as salient a concern as, say, maintaining harmonious relationships with men, or upholding notions about sexual needs, control, and responsibility (Higgins and Browne 2008, 243). Consequently, Higgins and Browne (2008, 244) suggest, programmes that target socially disadvantaged groups should not simply focus on contraceptive knowledge, but the 'taken-for-granted ideologies regarding the "uncontrollability" of men's sexual desire and the policies of refusal'.

A large body of studies also show how different social forces shape risk-taking practices in the world of work. The following two examples of male dominated occupations illustrate how workers are exposed to situations in which they take risks to prevent losing control over their life. When in a vulnerable position, employees often do not have or do not see a choice other than to take risks such as working overtime or ignore safety procedures (Sanne 2008; Kosla 2015). As Carson in his classic study on offshore oil drilling pointed out, workers took risks mainly to avoid losing their jobs. As one informant clarifies: 'No one is going to make you do an extra dive when you've done your number of hours already; but you know you've got to go' (1982, 76). In this case it might have been the company's policy, while in others employees feel exposed to the dynamics of competitive markets. As Kosla (2015) argues in his study on electrical construction workers in the US, in order to protect themselves against the competition of low-skilled 'cable monkeys' electrical construction workers tend to ignore safety procedures and take risks in areas they consider being core competencies of their profession.

Risk-taking is embedded in larger social processes, such as gendered social structures, organisational procedures, and market competition, in which unequal social power relations manifest. People's risk-taking in these cases deals with social structures, and people often struggle to remain in control of their life. In research highlighting the local impact of the global economy, it becomes obvious that many of these global dynamics are largely beyond the control of employees in local companies. As Tulloch and Lupton (2003) have shown using the example of workers in the British automobile industry, workers were knowledgeable and sensible regarding global changes that might affect their work and employability. They took risks and changed their jobs to avoid being made redundant and were partly successful. However, some of the company's decisions were beyond their knowledge and control and they were left in vulnerable positions. Their attempts to stay in control were not always rewarded. What



Beck and Beck-Gernsheim (2002) characterised as *risky freedoms* epitomises this state of ambivalence in which one has to take risks to advance successfully into an uncertain future but at the same time often has little control over and knowledge about the world.

All these examples show how people can conduct agency to protect their life. There is a body of research examining people who have to different degrees lost control over their life and take risks to *(re)gain control*. Indeed, the conditions vary considerably. An example is the decision of homosexuals to *come out* to regain control over their life when it is characterised by hiding their sexuality from friends and family (Tulloch and Lupton 2003, 44).

Batchelor (2007) argued in her study on Scottish young women aged 16 to 24 years who had been convicted of violent offences that these young women's risk-taking was a way of regaining control of a life which was experienced as being largely out of control. They had experienced family problems and abuse and used risk-taking to 'achieve a semblance of control' (Batchelor 2007, 205). Risk-taking provided them with a sense of agency. However, engaging in crime and drug use, they were unable to construct a meaningful future and lived very much in the present, focusing on the next hit. However, 'risk seeking' was still experienced as 'a way to make you feel' and reminded young women that they were 'alive'. Illicit risk-taking was valued as 'a vital survival strategy'.

The notion of control might be quite subjective and relative and people might expose themselves to high degrees of uncontrolled danger in the attempt to regain control over their life. Illegal work migration is an example of people's exposure to continuous danger that is largely out of their control (Bastide 2015). Many have already taken high risks when attempting to migrate to another country, as the study conducted by Hernández-Carretero and Carling (2012) shows. In their study on Senegalese men aged between 20 and 35 years trying to reach Spain's Canary Islands by boat in the 2000s, they showed how lack of control pulled these young men towards the high-risk journey. For them, it was the experienced suffering and low prospect of reaching a status and income which would allow them to establish independent adulthood and found a family in Senegal (Hernández-Carretero and Carling 2012, 410). It was also the shame they felt about their inability to improve the desperate situation for their parents and girlfriends, which contrasts sharply with their masculine identity. According to Hernández-Carretero and Carling, for many of their interviewees the choice to undertake the journey to the Canary Islands 'almost inverts the notions of life and death in relation to pirogue migration. Setting out on the dangerous journey represents hope, ambition, and glory – even if death should be the outcome. By contrast, not departing is presented as wilting away' (Hernández-Carretero and Carling 2012, 412). Material need, normative pressure and individual desire combine in this case while success was mainly outside of individual control. This example shows that hope and faith can serve an important function in enabling people to take high risk. Rather than encouraging passive behaviour, many combined faith and hope with careful preparation for the journey.

This last example comes close to risk-taking, when there is little or no prospect of gaining control. For example, in the context of sex-trafficking risks might be taken without the prospect of regaining control over one's life. Taking risks is rather a response to deal with everyday life threats. In a study of migrant sex-workers (Wallman 2001, 83) juggling many pressures and risks was common, some within but many outside one's control, ranging from the need to support a financially dependent family in their country of origin, the threat to them and their family if they should try to escape their pimp, or the decision not to use a condom for extra income. The sex-workers are neither in a position to prevent nor to overcome the risks they take or are exposed to. The implicit assumption that risk-taking has an element of agency becomes almost perverse. Being urged to take risks or exposed to bear risks without having the power to prevent risk exposure is one source of (extreme) suffering (Wilkinson 2005, 16ff.).

When resources are limited and only high risk-taking is considered a doable way to deal with suffering, all kind of resources are mobilised to manage risk-taking. People actively disregard information about negative outcomes of engaging with people smugglers (Hernández-Carretero and Carling 2012), they mobilise their faith or hope more generally to manage the high uncertainties involved (Bastide 2015). Positive and idealised imaginaries might serve as an alluring prospect as much as a devastating reality of everyday life suffering as an unbearable reality, which drive people to take life-threatening risks.

Whatever the motivations are and the degree of control people have, when taking risks, the body of available research shows that how people reflect about risk is influenced by the ways in which risk-taking is rooted in the social realm; whether it is part of a milieu-specific habitus, a learned and routinised activity or a normal part of a desired activity. This leads to the third dimension, and to the question of to what extent people do actually reflect on the risks they are taking.

### 2.3. Reflexivity

Reflexivity is a key tenet of the rational actor paradigm of risk-taking which requires ideally full knowledge and relatively stable preferences to rationally weigh the pros and cons of alternatives (Jaeger et al. 2001). However, social scientists have argued for a long time that the social realm and as part of it the way in which people reflexively engage with the world is fundamentally socially shaped (e.g. Berger and Luckmann 1966) which indeed includes risk and risk-taking. From an interpretivist perspective there are a number of ways in which the social shapes reflexivity. In the following three basic conceptual distinctions are introduced. Firstly, studies refer to deeply socially rooted factors linked to social milieus and structures as expressed in the concept of the habitus and *habitual risk-taking*. Secondly, there is good evidence that *risk-taking* has to be *learned* and *routinised* and through the learning process risk-taking practices change. Finally, risk-taking is often embedded in social activities and considered as a normal part of such activities (*normalised risk-taking*).

*Habitual risk-taking* rests on the assumption that large parts of everyday activities are part of routines that people learn during their upbringing. They take the form of embodied practices of a social habitus rooted in socio-structural conditions and cultural knowledge (Bourdieu 1979, 1990) while all kinds of socio-structural forces, such as gender and ethnicity, intersect with social class factors (Olofsson et al. 2014). The concept of the habitus and the notion of *habitual risk-taking* have attracted a number of scholars who argue for the deeper social roots of risk-taking as well as the influence of actual social and material conditions shaping individual experience and risk behaviour (e.g. regarding health: Williams 1995; Lindbladh et al. 1996; Lindbladh and Lyttkens 2002; social class and gender: Crawshaw 2004; Desmond 2007; Crawshaw and Bunton 2009).

In a study on a working class community in the north-east of England, Crawshaw and Bunton (2009) used Bourdieu's work to explore how the risk environment and habitus of young men combine in their dispositions towards risk and risk-taking. The community is characterised by incidence of crime, high unemployment and prevalence of illegal drug use while the young men in the study experienced their daily lives as 'starkly delimited, lacked opportunity and diversity' and 'were often felt to be without purpose'. As one of their interviewees suggest: 'There's nothing in Townville for the young ones; nothing at all. All it is if you're past the age of ten you're either on drugs or pinching cars' (aged 16–19). Rather than considering not using drugs at all, the young men engaged in their own risk assessment. Interviewees reported consuming less risky soft drugs such as marijuana compared to the 'smack-heads' who are on heroin. 'Not to take risks at all was to risk exclusion and ridicule but to embrace risk-taking totally was unacceptably a step too far' (Crawshaw and Bunton 2009). Responses consistently related to the embodied nature of their habitus as young men finding themselves within a 'tough' locality in which violence is construed as a routine and inevitable part of daily experiences:

In such a context the risks presented by fighting are less significant than being seen as deviating from accepted norms and practices. Therefore, what is at work is potentially a gender specific form of habitus which determines the practices of young men through requiring them to demonstrate a particular form of tough working class masculinity.

In contrast to suggestions that young men are active risk seekers Crawshaw and Bunton (2009) emphasise how the conditions of their interviewees living in a disadvantaged locality contributes to the development of a habitus that constructs risk as an ordinary event. Instead of seeing this as a mechanistic process, they suggest that even though a number of responses are possible in every given situation, events and available options are limited and negotiated.

Habitual risk-taking can be found in many forms linked to the milieu one is growing up in and includes women's risk-taking as well, even though most studies focus on men. Whether it is the choice



of relatively high-risk occupations such as soldiering (Zinn 2010, 19–24) or fire-fighting (Desmond 2007), the drinking culture of Danish carpenters (Fynbo and Jarvinen 2011) or the drinking and fighting of working class men in the UK (Canaan 1996), or sexual risk-taking of middle/working class women (Higgins and Browne 2008). Social milieus frame what risk-taking is considered normal and what risk-taking is unreasonable. This research suggests that attempts to change *habitual risk-taking* are unlikely to succeed if underpinning social conditions are not addressed as well.

Other studies emphasise how risk-taking is learned and how learning and routinising influence risk-taking practice. *Learning and routinising risk-taking* refers to how the risk-taking activity itself, the skills to master the risks, are routinely applied and change one's experience of a risky activity, gradually shifting what is considered risky. In contrast to habitual risk-taking the learning experience is less determined by a particular social class, and is instead concerned with becoming part of a life style or expert community of, for example, rock climbers, scuba divers or smokers. In such cases the focus is on the learned skills and the routinisation which changes the experience of risk.

In this perspective, risk-taking is not always clearly rooted in a particular social milieu but part of a process of *learning* and *routinising* that follows an 'internal' dynamic of the risk-taking activity itself. For example, in his ground-breaking work Becker (1963) challenged theories which 'ascribe behaviour to antecedent predispositions' (1953, 235) by arguing that people learn deviant behaviour, such as to smoke marijuana. Motives and dispositions would emerge and develop in the course of conducting a 'risky' activity. In this vein, Hughes (2003) shows how attitudes towards smoking are changing in the process of learning to become a smoker that can be characterised as a five step process if not giving up. During the first step people learn how to smoke properly, how to inhale and pull the smoke down into the lungs which might at the beginning be experienced as rather unpleasant. Smoking is mainly a social experience and a means to connect with others, to fit in or to impress. Often teens start smoking because smoking gives them a feeling of power and independence. With the second step of continuous smoking smokers start to smoke regularly even when they are on their own and socialising is no longer the primary reason. Gaining pleasure, alleviating stress and helping to concentrate at work are typical motives which become more influential reasons to smoke. People also begin to recognise themselves as smokers and realise that they feel a longing or need for tobacco during the day. With the growing feeling of dependency on nicotine they enter the third stage of being a regular smoker. Now smoking becomes a habit and a central part of their identity. The brand one smokes, the type of cigarettes and their taste become important issues. In Hughes' study, most smokers understood the health risks of smoking but framed it as an act of defiance. During this phase smoking becomes a means to stabilise the smoker's moods, to deal with anxiety and a means to relax when feeling stressed or overworked. At the same time, the desire to smoke becomes a more compelling influence than the individual will power of the smoker. This leads to the stage of addicted smoking. One's concerns are dominated by the risk of being restricted in smoking rather than the risk of smoking. The day becomes organised around the opportunities to smoke while the cigarette provides security, helps to handle stress, is a reward for something well done and a source of comfort when feeling anxious. It has become the central emotional resource to cope with day-to-day live. Habits such as smoking are learned while dealing with the challenges of everyday life. The reasons to quit are manifold such as a change of life situation, for example, pregnancy and the founding of a family. As the example shows, people become addicted but also more routinised while the experience of risk-taking changes. This has also been described, for example, in the case of consuming illicit drugs (Rhodes 1997, 220ff.).

Becoming addicted to a substance might play a role in the changing experience of risk-taking but effects of *routinisation* are also observable in other domains such as high-risk leisure activities. Studies of high altitude climbing, white water canoeing (Priest and Carpenter 1993) or scuba diving (Morgan and Stevens 2008) show that with growing skills and routines to support risk-taking people's confidence strengthens, they feel more in control and activities are considered less risky. Matthew Bunn's (2015) ethnographic research on high-risk climbing styles shows how people involved in low-risk outdoor activities get gradually involved in high-consequential climbing styles. During this process, people learned the practices of climbing and became both attracted to and used to engaging in high-risk climbing.

Learning and routinising risk-taking has a strong focus on the practice of risk-taking and how the repetition of the practice changes experience and thereby the meaning of risk-taking. However, possible negative events or a changed life situation such as taking on responsibility for others (e.g. family, children, caring) is for many the reason to reduce risk-taking or to cease dangerous risk-taking.

The distinction between *routinising* and *normalising* risk is often blurry. It seems that many studies use the concept of *normalising risk* when the focus is a desired activity and risk is considered a normal part of it. The risk itself usually does not constitute the central incentive to engage and does not involve processes of learning and changing attitudes towards risk. For example, in a multi-method study Albert (1999) analysed North American cycling publications, contributions of male and female cyclists to a website and interviews with predominantly male racing cyclists between mid-20s to mid-50s. His research explored the social world of the serious recreational and racing road rider. Albert argued that the risk of accidents was considered to be a normal part of the cycling sport which cannot be prevented. Instead, occasional accidents would 'exemplify the core values of the sport (e.g. the importance of continuing to cycle at whatever the cost; the inherent toughness of the activity)' (Albert 1999, 165). These values are also demonstrated in racing when 'regardless of the severity of a crash, the race goes on' (Albert 1999, 165).

Observations indicated that serious cyclists create a subculture similar in many respects to other sport subworlds that have been characterized as forms of edgework. Such worlds construct normative practices that give order and place to danger and risk, thus normalizing their occurrence as taken – for – granted features of participation. Serious recreational and racing cyclists invoked such embedded, normative practices to manage the everyday physical risks, thereby constructing common occurrences as falls, crashes, near-misses, and pile-ups as normal events. (Albert 1999, 169)

It is important to note that normalising risk is not necessarily a quality of the activity itself, but rather of how people approach it and how researchers make sense of their observations. For some people, the risks of competitive cycling might be part of the attraction while for others it is a necessary but undesired part of it.

Different motives, degree of control and reflexivity are linked to a number of social dimensions such as people's resources, social norms and values, and learned behaviour. Many of these factors are linked to people's identity, a consideration which the next section turns to.

## 2.4. Develop and protect identity

The concept of *identity* is one of the key explanatory variables in a growing body of studies which help in understanding people's risk-taking and deviations from expert risk knowledge. Identity is a core social science concept to explain individual activities and stands for the way in which individuals position themselves in a larger social context (Mead 1934; Goffman 1963; Butler 1990; Hall 1990; Giddens 1991; Castells 1997). Therefore it is often referred to as *self-identity* or *social identity*. For the purpose of the article, instead of engaging in ongoing controversial debates about the nature of identity, some fundamental distinctions are introduced regarding the different ways in which risk-taking is involved in the ongoing process of *identity work*.

Firstly, research in youth studies emphasise the importance of risk-taking as part of developing a valued identity, while research shows that this process is ongoing in later life as well. Secondly, research shows that the social conditions one lives under shape their understanding of risk and what risk-taking is considered acceptable or desirable. Thirdly, another branch of research shows that people take risks to protect their identity. These are three very fundamental distinctions. While there might be others, these three points appear to be the most central arguments that studies have brought forward to characterise risk-taking in relation to identity.

Risk-taking has been a key concern in youth studies and public debate focusing on how youth could be protected and undesirable risky behaviour reduced (e.g. Plant and Plant 1992; Ponton 1997). Many scholars recognise that youth risk-taking has a positive function necessary to the development of a healthy identity (Lightfoot 1997). Nevertheless, the tension between the desire to minimise risk

and the need to take risk as part of learning and growing up continues to fuel public debates such as in education. As Biesta (2013, 1) ascertained ‘policy makers, politicians, the popular press, “the public”, and organizations such as the ... OECD and the World Bank increasingly seem to be expecting if not demanding from education ... To be risk-free on all levels’. However, he argues that these desires ignore the character of education that ‘is not about filling a bucket but about lighting a fire. ... Yes, we do educate because we want results and because we want our students to learn and achieve’. Biesta warns that ‘if we take the risk out of education, there is a real chance that we take out education altogether’ (Biesta 2013, 1). It remains contested to what degree children can be provided with safe opportunities for risk-taking and where to draw the line between acceptable risk and unacceptable risk (e.g. Lightfoot 1997, 166).

A growing body of research argues that the difficulties public campaigns face when attempting to change youth risk-taking behaviour might be more systematic. For example, Lightfoot (1997, 21) suggests risk-taking in adolescence might have a ‘functional utility’. In this perspective it is less the lack of knowledge (e.g. Slovic 2000, 7), or a human drive (von Cube 1990), or a particular developmental stage (Steinberg 2008), than it is the need to find out about oneself and to position oneself in the social realm that motivates youth risk-taking. ‘The only way to get experience is to take risks’ and it is about ‘growth – inner growth and a feeling of independence and maturity in trying something new’ (quotes of a 16 and a 17 year old teenager, Lightfoot 1997, 97). One’s risk-taking is a powerful symbolic statement as risks might be taken to impress friends. In this context, risks become effective symbols for a collective biography when they are shared with others. They are the means to develop or maintain interpersonal relationships and group cohesion (Lightfoot 1997, 99–100, 129).

Uncertainty is the central element of youth risk-taking as it allows the exploration of new territory, different possibilities and one’s own abilities. Excitement results from the novel or forbidden and it is important to achieve control over the unknown or unpredictable. From experiences of well taken risks, feelings of responsibility and maturity result. However, even risk-taking that went wrong could become valued as an experience of growth, learning and mature identity (Lightfoot 1997, 107). Seeing risk-taking as a crucial part of life helps to understand how risk-taking is shaped by the social environment as well as one’s position in the social realm.

A study of Lupton and Tulloch (2002) with 74 adult Australians from Sydney (the largest Australian city), Wollongong (a large post-industrial city) and Bathurst (a small country town) (1997–1998) has shown that risk-taking is not restricted to youth and adolescence; for many it is an essential part of life. As one interviewee stated: ‘I don’t think that you can live life fully without placing yourself in a risky situation’ (2002, 119). But it is not only that you cannot avoid taking at least some risk. For many, taking risks is what makes life interesting and worth living. ‘Life would be pretty dull without risk’ (2002, 117). Similarly to youth and adolescence, ‘voluntary risk-taking is often pursued for the sake of facing and conquering fear, displaying courage, seeking excitement and thrills and achieving self-actualisation and a sense of personal agency’ (Lupton and Tulloch 2002, 115). Emotional engagement is one key element of voluntary risk-taking. The embodied joy is often set in contrast to mundane life, and the adrenalin buzz in risk-taking activities is welcomed as a means of breaking free from it (Lupton and Tulloch 2002, 121).

Research on youth and adult life shows that risk-taking is not only rooted in human nature, but also has an important social function. It positions one in the social world and provides feelings of identity, self-worth and purpose. However, risk-taking is not only crucial for developing and maintaining a valued identity and individual well-being. Risks are also taken to *protect a valued identity*.

A body of research shows that risk-taking is not only a resource for personal growth and well-being. Risks might also be taken to *protect an identity or life style* which can lead to counterintuitive responses challenging expert advice.

For example, Harries (2008) suggests the reasons why some people in flood risk areas in England do not protect their home against flooding could only be understood considering how such measures threaten these people’s *ontological security*. Referring to Maslow’s hierarchy of needs he argues that ‘the rejection of flood-risk mitigation measures, and indeed of the whole discourse of flood-risk mitigation, occurs, ... because [these measures] are perceived as endangering other needs that are immediate and

pressing' (480). Householders' sense of security depends on three fundamental social assumptions that *a home is safe, society efficiently protects its citizens against floods and nature is in general benign*. Only a number of first-hand flooding experiences create doubts in the householders' minds and produce the conditions in which these assumptions are held to be no longer tenable. Under these circumstances, some householders are willing to stop risk-taking and adopt safety measures. However, other householders despite the experience of flood continue to take the risk of flood damage as they see the protective measures as more threatening in terms of loss of ontological security and the homeliness of their house (Harries 2008, 487).

A study on men taking risks illustrates that when risk-taking is in the core of a strong gender identity (here: hegemonic masculinity, e.g. Kimmel 2008) even the death of a friend does not reduce risk-taking (Creighton et al. 2015). Creighton et al. use the notion of the *community of practice* to highlight the connection between risk-taking and identity. In their study, hegemonic masculinity expressed in taking high risks was a defining feature of young men's group affiliation. Therefore, the experience of the death of a friend did not challenge but sometimes rather strengthens both gender identity and group norms.

Similarly expert advice might be rejected when it would require ceasing *learned behaviour* such as strategies to cope with life challenges (e.g. smoking to deal with stress) or to give up *valued life styles* (e.g. regularly drinking alcohol with meals) which are central to one's identity. For example, women smoking or drinking during pregnancy at times where the negative effects of smoking and drinking to the unborn life are well known have to re-interpret expert knowledge to protect their identity against negative stigma (Hammer and Inglin 2014, 24). Many qualitative studies have shown that women are aware of and knowledgeable about the health risks of smoking and drinking during pregnancy (Wigginton and Lafrance 2014, 531). When women make their own decisions they deal with the available information and normative discourses to fit their life situation, learned behaviour and identity. Wigginton and Lafrance (2014) showed that some women justified their smoking as a coping strategy to deal with everyday life challenges. Women mobilised personal experiences against the probabilistic knowledge of medicine to challenge medical knowledge, to raise doubts and emphasise the uncertainty of expert knowledge, thereby deflecting moral threats to their identity. They presented health as a lottery and good and bad health as being a 'lottery draw' (Wigginton and Lafrance 2014, 542). The women in the study effectively redefined risk, emphasising their own levels of stress and reasoning that if they stopped smoking this could harm their babies. Many women claimed that their reducing smoking approach has been supported by health professionals (Wigginton and Lafrance 2014, 543) and redefine it as 'smoking for health' thereby protecting their identity against moral threats (Wigginton and Lafrance 2014, 543–544). The mainly middle class women in the study of Hammer and Inglin (2014) on pregnant women in Switzerland rejected smoking as irresponsible risk-taking, while moderate drinking was considered a low-risk lifestyle choice and embedded in everyday culture (for example having a glass of wine with dinner). In both cases, women present themselves as responsible risk-takers that make knowledgeable decisions under uncertainty and even mobilise professional support for their approach of reduced smoking or occasional drinking.

Identity is a crucial element when people make sense of risk. They might take risks to find out about themselves and navigate their position within the social realm. Risk-taking might become a central part of one's identity, but risks are also taken to protect one's identity, learned behaviour or desired life styles. Risk-taking in these cases is not based on a lack of knowledge, but on the different ways in which people make sense of their life. As a result, risk communication and information strategies which are based on the assumption of a lack of knowledge and understanding of risk tend to be inefficient or even fail.

### 3. Conclusions

Risk experts often struggle with understanding how people deal with risk in everyday life and why and how people actively take risks. Many authors have suggested that better understanding of risk-taking requires attending to the practices and dynamics of risk-taking in everyday life, and how these are

embedded in larger social dynamics (e.g. Bunton, Green, and Mitchell 2004; Marston and King 2006). The article reviews literature from a growing body of qualitative research to start systematising this research domain. It suggests distinguishing three fundamentally different motives of risk-taking: as an *end in itself*, as a *means to an end* and as a *response to vulnerability*. Each characterises a particular situation people are exposed to when taking risks. *Control* in risk-taking is a key issue and not self-evident. People might have *full control*, take risks to *protect control* or *regain control* but sometimes are in vulnerable situations and risk-taking does not help them to improve their situation (*little/no control*). Rather they are exposed to high risk and they have little choice other than to take risks that others or particular social conditions expose them to. A lack of *reflexivity* has been interpreted as a cause of unreasonable risk-taking. Lacking knowledge is certainly a problem in a large number of risk-taking activities. However, in many cases when people's practice deviates from expert advice, risk-takers are aware that they are taking risks. They consider risks to be desirable, acceptable or normal, or believe they do not have a choice. This includes people who purposefully ignore information that may compromise their ability to take high risks to improve an 'unbearable' situation.

One's *identity* has been proven to be an important driver to take risks in at least two different ways: actively seeking and successfully managing risk, whether in youth or later life, contributes to developing and maintaining a positive identity which provides feelings of self-worth, confidence and meaning in life. Contrarily, risks are also taken as a central part of a valued identity or to protect one's identity. This is how people make sense of the world and position themselves in it.

Altogether the article supports the view that people are often reasonable risk-takers who take risks in order to deal with their life and its challenges on the basis of the resources available to them and in order to establish a life and an identity that they value.

Changing people's involvement with risk requires an understanding of people's everyday life and their experiences of managing different social forces and personal desires. There are at least two further promising directions for further research.

Biographical and life-course perspectives (e.g. Zinn 2005, 2010) can help to understand the different ways that people engage with risk on the basis of their biographical experiences and expectations. Therefore, the biographical dimension could become a valuable approach for understanding emerging and changing patterns of risk-taking routed in new biographical experiences (e.g. cross-national ways of existence). Secondly, engaging in social media has become increasingly influential for people's taking and managing of risk (e.g. Berning and Hardon 2016). Often seen as a resource, social media also comes with new risks. Thus, understanding the social mechanisms and individual sense-making of digital societalisation is becoming a crucial dimension for the social management of risk-taking.

## Notes

1. It is important to acknowledge the overwhelming evidence that both (so called) lay-people as well as experts are involved in *practical reasoning*.
2. I would like to thank Raymond Murphy for his suggestion to distinguish between risk-taking and risk-making at the workshop *Core Concepts in Environmental Sociology*, 23–25 September 2015, Örebro, Sweden.
3. Tacit knowledge and wishful thinking might combine in ways while there is always space for the exploitation of trust and false perception of trustworthiness.

## Disclosure statement

No potential conflict of interest was reported by the author.

## Funding

This work was supported by the Alexander von Humboldt-Stiftung [Friedrich-Wilhelm Bessel Award 2015].



## ORCID

Jens O. Zinn  <http://orcid.org/0000-0002-4992-9123>

## References

- Ajzen, I. 2002. "Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior." *Journal of Applied Social Psychology* 32 (4): 665–683. doi:10.1111/j.1559-1816.2002.tb00236.x.
- Albert, E. 1999. "Dealing with Danger: The Normalization of Risk in Cycling." *International Review for the Sociology of Sport* 34 (2): 157–171. doi:10.1177/101269099034002005.
- Bandura, A. 1997. *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- Bastide, L. 2015. "Faith and Uncertainty: Migrants' Journeys Between Indonesia, Malaysia and Singapore." *Health, Risk & Society* 17 (3–4): 226–245.
- Batchelor, S. A. 2007. "Getting Mad Wi'it': Risk-seeking by Young Women." In *Gendered Risks*, edited by K. Hannah-Moffat and P. O'Malley, 205–227. Abingdon: Routledge-Cavendish.
- Beck, U. 1992. *Risk Society: Towards a New Modernity*. London: Sage.
- Beck, U. 2009. *World at Risk*. Cambridge: Polity.
- Beck, U., and E. Beck-Gernsheim. 2002. *Individualization: Institutionalized Individualism and Its Social and Political Consequences*. London: Sage.
- Becker, H. S. 1963. *Outsiders*. New York: The Free Press.
- Berger, P. L., and T. Luckmann 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Garden City, NY: Anchor Books.
- Berning, M., and A. Hardon. 2016. "Educated Guesses and Other Ways to Address the Pharmacological Uncertainty of Designer Drugs: An Exploratory Study of Experimentation through an Online Drug Forum." *Contemporary Drug Problems* 43 (3): 277–292. doi:10.1177/0091450916662164.
- Biesta, G. J. J. 2013. *The Beautiful Risk of Education*. Boulder: Paradigm.
- Bloor, M. 1995. *The Sociology of HIV Transmission*. London: Sage.
- Bourdieu, P. 1979. *La Distinction: Critique Sociale Du Jugement*. Paris: Les Éd. de Minuit.
- Bourdieu, P. 1990. *The Logic of Practice*. Cambridge: Polity Press.
- Bourne, A. H., and M. A. Robson. 2009. "Perceiving Risk and (Re)Constructing Safety: The Lived Experience of Having 'Safe' Sex." *Health, Risk & Society* 11 (3): 283–295. doi:10.1080/13698570902906421.
- Bunn, M. 2015. "'I'm Gonna Do this Over and Over and Over Forever!': Overlapping Fields and Climbing Practice." *International Review for the Sociology of Sport*: 1–14. doi: 10.1177/1012690215609785.
- Bunton, R., E. Green, and W. Mitchell. 2004. "Introduction: Young People, Risk and Leisure, an Overview." In *Young People, Risk and Leisure: Constructing Identities in Everyday Life*, edited by W. Mitchell, R. Bunton, and E. Green, 1–23. Houndsmills: Palgrave Macmillan.
- Butler, J. 1990. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Canaan, J. 1996. 'One Thing Leads to Another': Drinking, Fighting and Working-Class Masculinities. In *Understanding Masculinities*, edited by M. Mac An Ghaill, 114–125. Buckingham: Open University Press.
- Carson, W. G. 1982. *The Other Price of Britain's Oil: Safety and Control in the North Sea*. New Brunswick, NJH: Rutgers University Press.
- Castells, M. 1997. *The Power of Identity: The Information Age: Economy, Society, and Culture*. Malden, MA: Wiley-Blackwell.
- Crawshaw, P. 2004. The Logic of Practice in the Risky Community: The Potential of the Work of Pierre Bourdieu for Theorising Young Men's Risk – Taking. In *Young People, Risk and Leisure: Constructing Identities in Everyday Life*, edited by W. Mitchell and R. Bunton, 224–242. Houndsmills: Palgrave Macmillan.
- Crawshaw, P., and R. Bunton. 2009. "Logics of Practice in the 'Risk Environment'" *Health, Risk & Society* 11 (3): 269–282. doi:10.1080/13698570902906447.
- Creighton, G. M., J. L. Oliffe, E. McMillan, and E. M. Saewyc. 2015. "Living for the Moment: Men Situating Risk-taking after the Death of a Friend." *Sociology of Health and Illness* 37 (3): 355–369. doi:10.1111/1467-9566.12194.
- Crotty, M. 1998. *The Foundations of Social Research. Meaning and Perspective in the Research Process*. Crows Nest, NSW: Allen & Unwin.
- Cube, F. V. 1990. *Gefährliche Sicherheit. Die Verhaltensbiologie des Risikos*. München: Piper.
- Degenhardt, L., C. O'Loughlin, W. Swirt, H. Romaniuk, J. Carlin, C. Coffey, W. Hall, and G. Patton. 2013. "The Persistence of Adolescent Binge Drinking into Adulthood: Findings from a 15-year Prospective Cohort Study." *British Medical Journal Open* 3 (8): e003015. doi:10.1136/bmjopen-2013-003015.
- Desmond, M. 2007. *On the Fireline: Living and Dying with Wildland Firefighters*. Chicago, IL: University of Chicago Press.
- Douglas, M. 1985. *Risk Acceptability according to the Social Sciences*. New York: Russell Sage Foundation.
- Douglas, M., and A. B. Wildavsky. 1982. *Risk and Culture: An Essay on the Selection of Technical and Environmental Dangers*. Berkeley, CA: University of California Press.
- Fischhoff, B. 2012. *Risk Analysis and Human Behavior*. Milton Park: Earthscan.



- Fischhoff, B., and J. D. Kadavy. 2011. *Risk: A Very Short Introduction*. Oxford: Oxford University Press.
- French, J. 2011. "Why Nudging is Not Enough." *Journal of Social Marketing* 1 (2): 154–162. doi:10.1108/20426761111141896.
- Fynbo, L., and M. Jarvinen. 2011. "The Best Drivers in the World: Drink-driving and Risk Assessment." *British Journal of Criminology* 51 (5): 773–788. doi:10.1093/bjc/azr067.
- van Gemert, C., P. Dietze, J. Gold, R. Sacks-Davis, M. Stooé, H. Vally, and M. Hellard. 2011. "The Australian National Binge Drinking Campaign: Campaign Recognition among Young People at a Music Festival Who Report Risky Drinking." *BMC Public Health* 11 (1): 150. doi:10.1186/1471-2458-11-482.
- Giddens, A. 1991. *Modernity and Self-identity: Self and Society in the Late Modern Age*. Stanford, CA: Stanford University Press.
- Giddens, A. 2000. *Runaway World*. New York: Routledge.
- Gigerenzer, G. 2010. *Rationality for Mortals. How People Cope with Uncertainty*. Oxford: Oxford University Press.
- Gigerenzer, G., P. M. Todd, and the ABC Research Group. 2001. *Simple Heuristics That Make Us Smart*. Oxford: Oxford University Press.
- Goffman, E. 1963. *Stigma: Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice Hall.
- Greitemeyer, T., A. Kastenmüller, and P. Fischer. 2013. "Romantic Motives and Risk-taking: An Evolutionary Approach." *Journal of Risk Research* 16 (1): 19–38. doi:10.1080/13669877.2012.713388.
- Hall, S. 1990. "Cultural Identity and Diaspora." In *Identity: Community, Culture, Difference*, edited by J. Rutherford, 222–237. London: Lawrence and Wishart.
- Hammer, R., and S. Inglin. 2014. "I Don't Think it's Risky, but ...: Pregnant Women's Risk Perceptions of Maternal Drinking and Smoking." *Health, Risk & Society* 16 (1): 22–35. doi:10.1080/13698575.2013.863851.
- Harries, T. 2008. "Feeling Secure or Being Secure? Why It Can Seem Better Not to Protect Yourself against a Natural Hazard." *Health, Risk & Society* 10 (5): 479–490. doi:10.1080/13698570802381162.
- Hayenhjelm, M. 2006. "Out of the Ashes: Hope and Vulnerability as Explanatory Factors in Individual Risk Taking." *Journal of Risk Research* 9 (3): 189–204. doi:10.1080/13669870500419537.
- Hernández-Carretero, M., and J. Carling. 2012. "Beyond 'Kamikaze Migrants': Risk-taking in West African Boat Migration to Europe." *Human Organization* 71 (4): 407–416. doi:10.17730/humo.71.4.n52709742v2637t1.
- Higgins, J. A., and I. Browne. 2008. "Sexual Needs, Control, and Refusal: How 'Doing' Class and Gender Influences Sexual Risk Taking." *Journal of Sex Research* 45 (3): 233–245. doi:10.1080/00224490802204415.
- Horlick-Jones, T. 2005. "Informal Logics of Risk: Contingency and Modes of Practical Reasoning." *Journal of Risk Research* 8 (3): 253–272. doi:10.1080/1366987042000270735.
- Horlick-Jones, T., J. Walls, and J. Kitzinger. 2007. "Bricolage in Action: Learning about, Making Sense of, and Discussing, Issues about Genetically Modified Crops and Food." *Health, Risk & Society* 9 (1): 83–103. doi:10.1080/13698570601181623.
- Hughes, J. 2003. *Learning to Smoke: Tobacco Use in the West*. Chicago, IL: University of Chicago Press.
- Jaeger, C., O. Renn, E. A. Rosa, and T. Webler. 2001. *Risk, Uncertainty and Rational Action*. London: Earthscan.
- Katz, J. 1988. *Seductions of Crime: Moral and Sensual Attractions in Doing Evil*. New York: Basic Books.
- Kimmel, M. S. 2008. *Guyland: The Perilous World Where Boys Become Men*. New York: HarperCollins.
- Kosla, M. T. 2015. "The Safety Dance: Men without [Hard] Hats." *Health, Risk & Society* 17: 388–403. doi:10.1080/13698575.2015.1116499.
- Lefcourt, H. M. 1982. *Locus of Control: Current Trends in Theory and Research*. New York: Lawrence Erlbaum.
- Lightfoot, C. 1997. *The Culture of Adolescent Risk-taking*. New York: Guilford Press.
- Lindbladh, E., and C. Lyttkens. 2002. "Habit versus Choice: The Process of Decision-making in Health-related Behaviour." *Social Science and Medicine* 55: 451–465. doi:10.1016/S0277-9536(01)00180-0.
- Lindbladh, E., C. Lyttkens, B. Hanson, P. Ostergren, S. Isacson, and B. Lindgren. 1996. "An Economic and Sociological Interpretation of Social Differences in Health-related Behaviour: An Encounter as a Guide to Social Epidemiology." *Social Science and Medicine* 43 (12): 1817–1827. doi:10.1016/S0277-9536(96)00087-1.
- Luhmann, N. 1988. "Familiarity, Confidence, Trust: Problems and Alternatives." In *Trust: Making and Breaking of Cooperative Relations*, edited by D. Gambetta, 94–107. Oxford: Blackwell.
- Luhmann, N. 1993. *Risk: A Sociological Theory*. New York: A. de Gruyter.
- Lupton, D., and J. Tulloch. 2002. "Life Would Be Pretty Dull without Risk': Voluntary Risk-taking and its Pleasures." *Health, Risk & Society* 4 (2): 113–124. doi:10.1080/13698570220137015.
- Lyng, S. 1990. "Edgework: A Social Psychological Analysis of Voluntary Risk-taking." *The American Journal of Sociology* 95 (4): 851–886.
- Lyng, S., ed. 2005. *Edgework. The Sociology of Risk-taking*. New York: Routledge.
- Marston, C., and E. King. 2006. "Factors That Shape Young People's Sexual Behaviour: A Systematic Review." *The Lancet* 368: 1581–1586. doi:10.1016/S0140-6736(06)69662-1.
- Mead, G. 1934. *Mind, Self, and Society*. Chicago, IL: The University of Chicago Press.
- Möllerling, G. 2006. *Trust: Reason, Routine, Reflexivity*. Amsterdam: Elsevier.
- Morgan, C., and C. A. Stevens. 2008. "Changes in Perceptions of Risk and Competence among Beginning Scuba Divers." *Journal of Risk Research* 11 (8): 951–966. doi:10.1080/13669870802187691.
- Olofsson, A., J. O. Zinn, G. Griffin, K. Giritli Nygren, A. Cebulla, and K. Hannah-Moffat. 2014. "The Mutual Constitution of Risk and Inequalities: Intersectional Risk Theory." *Health, Risk & Society* 16 (5): 417–430. doi:10.1080/13698575.2014.942258.
- Plant, M., and M. Plant. 1992. *Risk-takers: Alcohol, Drugs, Sex and Youth*. London: Routledge.

- Ponton, L. E. 1997. *The Romance of Risk: Why Teenagers Do The Things They Do*. New York: Basic Books.
- Priest, S., and G. Carpenter. 1993. "Changes in Perceived Risk and Competence during Adventurous Leisure Experiences." *Journal of Applied Recreation Research* 18: 51–71.
- Rhodes, T. 1997. "Risk Theory in Epidemic times: Sex, Drugs and the Social Organisation of Risk Behaviour." *Sociology of Health and Illness* 19 (2): 208–227. doi:10.1111/1467-9566.ep10934410.
- Roth, S. 2015. "Aid Work as Edgework: Voluntary Risk-taking and Security in Humanitarian Assistance, Development and Human Rights Work." *Journal of Risk Research* 18 (2): 139–155. doi:10.1080/13669877.2013.875934.
- Sanne, J. M. 2008. "Framing Risks in a Safety-critical and Hazardous Job: Risk-taking as Responsibility in Railway Maintenance." *Journal of Risk Research* 11 (5): 645–658. doi:10.1080/13669870701715550.
- Slovic, P. 2000. *The Perception of Risk*. London: Earthscan.
- Steinberg, L. 2008. "A Social Neuroscience Perspective on Adolescent Risk-taking." *Developmental Review* 28: 78–106. doi:10.1016/j.dr.2007.08.002.
- Thaler, R. H., and C. R. Sunstein. 2009. *Nudge: Improving Decisions about Health, Wealth and Happiness*. London: Penguin Books.
- Trimpop, R. M. 1994. *The Psychology of Risk-taking Behavior*. Amsterdam: Elsevier.
- Tulloch, J., and D. Lupton. 2003. *Risk and Everyday Life*. London: Sage.
- Tversky, A., and D. Kahneman. 1974. "Judgement Under Uncertainty: Heuristics and Biases." *Science* 185 (4157): 1127–1131.
- Wallman, S. 2001. "Global Threats, Local Options, Personal Risk: Dimensions of Migrant Sex Work in Europe." *Health, Risk & Society* 3 (1): 75–87. doi:10.1080/713670170.
- Weiner, B. 1980. *Human Motivation*. Hillsdale, NJ: Lawrence Erlbaum.
- Wigginton, B., M. N. LaFrance. 2014. "'I Think He is Immune to All the Smoke I Gave Him': How Women Account for the Harm of Smoking during Pregnancy." *Health, Risk & Society* 16 (6): 530–546. doi:10.1080/13698575.2014.951317.
- Wilkinson, I. 2005. *Suffering: A Sociological Introduction*. Cambridge: Polity.
- Williams, S. 1995. "Theorising Class, Health and Lifestyles: Can Bourdieu Help Us?" *Sociology of Health and Illness* 17 (5): 577–604. doi:10.1111/1467-9566.ep10932093.
- Zinn, J. O. 2005. "The Biographical Approach: A Better Way to Understand Behaviour in Health and Illness." *Health, Risk & Society* 7 (1): 1–9.
- Zinn, J. O. 2008. "Heading into the Unknown: Everyday Strategies for Managing Risk and Uncertainty." *Health, Risk & Society* 10 (5): 439–450. doi:10.1080/13698570802380891.
- Zinn, J. O. 2010. "Biography, Risk and Uncertainty – Is There Common Ground for Biographical Research and Risk Research? [59 Paragraphs]." *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* 11 (1). Art. 15. <https://nbn-resolving.de/urn:nbn:de:0114-fqs1001153>.
- Zinn, J. O. 2011. "The Biographical Management of Risk and Uncertainty – British Veterans." *Historical Social Research* 36 (3): 237–269.
- Zinn, J. O. 2015. "Towards a Better Understanding of Risk-taking: Key Concepts, Dimensions and Perspectives." *Health, Risk & Society* 17 (2): 99–114. doi:10.1080/13698575.2015.1023267.
- Zinn, J. O. 2016. "Living in the Anthropocene: Towards a Risk-taking Society." *Environmental Sociology* 2 (4): 385–394. doi:10.1080/23251042.2016.1233605.
- Zinn, J. O. 2016. "'In-between' and Other Reasonable Ways to Deal with Risk and Uncertainty: A Review Article." *Health, Risk & Society* 18 (7–8): 348–366. doi:10.1080/13698575.2016.1269879.