

To be published as:

A M Williams and V Baláž 'Migration, risk and uncertainty: theoretical perspectives',
Population, Space and Place published online March 2011
DOI: 10.1002/psp.663

MIGRATION, RISK AND UNCERTAINTY: THEORETICAL PERSPECTIVES

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ABSTRACT

Risk shapes, and is shaped by, migration but while widely acknowledged, this is unevenly and mostly only implicitly theorised and analysed. Starting from the distinction between risk and uncertainty, the paper contrasts the different approaches of economics and sociology to theorising risk, in terms of scale, social constructionism, and being informed by risk as opposed to being at risk. It reviews the extent to which six theoretical approaches have been, and could be, applied to migration, risk and uncertainty: human capital, risk tolerance, new economics of migration, risk and culture, risk society and governmentality.

Key words: migration, risk, uncertainty, theoretical perspectives, economics, sociology

INTRODUCTION

Risk and uncertainty are encountered in most aspects of everyday life, ranging from the trivial to the deeply serious (Tulloch and Lupton, 2003: 1; Mehta, 2007: 3). Migration is both informed by risk and uncertainty, and generates risk and uncertainty, whether for migrants, non-migrants in sending communities, or populations in the destination countries. Risk and uncertainty are pervasive, although to different degrees, in all forms of migration – whether as refugees, asylum seeking, regular or irregular migration – and at all stages of the migration cycle. Risk is also scalar, and can be thought of as impacting – or being impacted on – at the individual, household, community, regional, national and global levels.

Migration can also be thought of as informed by, generating and ameliorating risk and uncertainty, and these dimensions are multi-scalar and inter-related. First, migration is informed by risk/uncertainty: who migrates and who does not, the destinations of migrants, the channels of migration, their experiences abroad, and decisions to stay and return. Secondly, migration can also be understood as generating risk/uncertainty, especially in popular, political and policy discourses: this is evidenced in discussion of the ‘boat people’ of South East Asia or the Mediterranean, those exploited by smugglers and traffickers (Koser, 2008), migrant sex workers (Agostini, 2007), and live in women care workers (Anderson, 2000). Migration is also perceived to generate risks for destination societies, linked to a process of highly racialised and ethnicised ‘Othering’, and – to a lesser extent – countries of origin, in terms of ‘brain drain’ and ageing population scenarios. A third perspective sees migration as risk ameliorating, on the basis that non migration is also not risk/uncertainty free, but constitutes a different set of challenges. This has been embraced by the new economics of migration in terms of spreading household risks households across uncorrelated markets (Massey et al, 1993: 433). Moreover,

migration can be understood as a form of knowledge acquisition (Williams and Baláž, 2008), which arguably reduces risk/uncertainty in future re-migration, and increases risk resilience (Alwang et al., 2001).

While migration research often emphasizes the importance of risk (Massey et al., 1993; Roberts and Morris, 2003), there is little *explicit* theorization of the role of risk/uncertainty. It is either simply acknowledged, or assumed to be implicit in, for example, wage levels in human capital theories. In part the failure to adequately understand the role of risk in migration is due to lack of theorization. Inevitably, there is no single comprehensive theoretical framework for risk and uncertainty. Instead, this is a highly contested terrain which is, at best, unevenly populated by migration researchers.

In response to this lacuna, the paper examines some of the ways in which migration and risk/uncertainty can be explicitly theorized. We begin with a brief discussion of the difference between risk and uncertainty, followed by an exploration of the contrasting approaches of economics and sociology to theorising risk/uncertainty and migration. These theories are differentiated in a number of ways, but especially in terms of the extent to which they understand risks and uncertainty to be real or socially constructed (Lupton, 1999), and also on whether they stress individualism or collectivism (Taylor Gooby, 2008). There is also considerable research within the psychology tradition, but other than where this overlaps with behavioural economics, it is excluded here for the sake of brevity. The paper concludes by setting out a research agenda on migration, risk and uncertainty.

RISK AND UNCERTAINTY

There are many different conceptualizations of risk and uncertainty (Camerer and Weber, 1992), but their differentiation is usually considered to originate in Knight (1921). He argued that they represent, respectively, known and unknown uncertainties. In the modernist tradition, with economists at the forefront, risk has been equated with known probabilities of outcomes (Zinn, 2004b). Hence, a risky decision involves choices amongst a range of possible outcomes, whose probabilities are known (Tversky and Kahneman, 1992). This is epitomized by betting on a roulette wheel and, indeed, much research in this field has focussed on individual investment or gambling decisions where the probabilities of different outcomes are known.

In the case of migration, as with most real-life events outside the controlled conditions of a laboratory or the highly specific conditions of betting on a lottery ticket or roulette wheel, there is always a degree of uncertainty. Even a migrant moving to a pre-arranged job, who has received information about housing and other costs from social contacts in the destination, faces elements of uncertainty; for example, how (s)he will adapt to new working and social conditions. The extent of uncertainty versus risk is necessarily variable over space and time, and perhaps over the course of the migration cycle.

Uncertainty in migration has two sources. The first is imperfect knowledge about current conditions both in the place of origin and possible destinations. This raises the issue of there being competing understandings of knowledge. Perhaps the best known starting point is Polanyi's (1966) distinction between codified and tacit knowledge. Migrants may have relatively good access to codified knowledge about places (on web sites, in books etc), and may even have partial access to tacit knowledge, as result of talking to current or returned migrants. However, they lack much of the tacit knowledge about other places which shapes future expectations (Luhmann, 1995), not least because these are based on embedded and encultured

knowledge, informed by values they do not necessarily share (Blackler, 2002). In a different conceptualization of knowledge, Styhre (2004) argues that the distinction between tacit and explicit knowledge is problematic because they are inseparable. Instead, knowledge is an assemblage of cognitive capacities, within which intellect and intuition represent different forms of thinking. Hence, potential migrants make decisions in different ways, depending on both their own cognitive capacities, and the availability of information. Where they lack clear or convincing information, decisions may be based more on intuition and less on intellect.

The second source of uncertainty is the unpredictability of the future. All future changes involve some uncertainty, because the probabilities of particular outcomes can not be known for certain. Individuals therefore act on the basis of expectations, developing ideas about likely outcomes, which may be quantified as probabilities, both absolute (e.g. 25% of all migrants failed to find jobs there) and in relative terms (work will be more available in A than B), or based on intuition (I feel it will be better there). Migrants face specific challenges in forming future expectations, ranging from questions about exchange rates movements, to the unpredictability of migration politics, to how children's identities change when growing up in another country.

Migration is therefore better characterized as being associated with uncertainty rather than risk, not least because of the fluid and contested nature of knowledge. However, as migration decisions are usually informed by *some* knowledge about the destination, decisions are rarely, if ever, made in full ignorance. Therefore, migration should probably be characterized as being associated with expectations about risk formed under conditions of partial knowledge. This is best understood as a continuum of knowledge and uncertainty, or of risk and uncertainty, which is fluid with individuals moving in both directions along the continuum in terms of personal understandings of the limitations of knowledge.

While this is the reality faced by migrants, modern governments and governance find it difficult to formulate policies on the basis of uncertainty. They, therefore, seek to convert uncertainties into quantifiable risks. This is evident in the UK, where the Migration Advisory Committee was established to analyse and predict (risks of) future labour market shortages in order to inform a points based system of work permits.

In the remainder of the paper we explore the value for migration studies of different approaches to theorising risk and uncertainty, drawing especially on economics and sociology. Economics theories mostly assume not only that risks are objective, but also that they can be quantified and modelled. As would be expected, sociological approaches are based more on social constructionism, and are less individual and more collective in focus. Our approach was significantly informed by the work of SCARR (Social Contexts and Responses to Risk) on generic risk research (<http://www.kent.ac.uk/scarr/>).

ECONOMIC THEORIES

Economics has probably paid more explicit attention to risk in migration than any other discipline. Most relevant economic theories focus on risk rather than uncertainty, assuming that risks are real, known, and measurable, if only through surrogates, and that the individual is the key site of analysis. Individuals are assumed to behave rationally and to maximize returns, taking into account costs, including risks. The main contribution within this framework has probably been from human capital theories (Massey et al., 1993). However, an emergent strand of generic research which incorporates direct measures of individual risk tolerance and aversion into models of economic behaviour has considerable potential for migration studies. In contrast, 'the new economics of migration' shifts the analytical focus from individuals to households, although the theories are still better understood as

individualist rather than collectivist. All these theories view risk as being 'real' and 'out there' rather than socially constructed.

Human capital theories, the implicit pricing of migration risks

Human capital theories have been particularly influential in migration studies. They understand the individual migration decision as an investment decision based on differential returns to human capital in different locations. Potential lifetime economic returns are balanced against the *known and unknown* costs and returns of migration (Stark, 1991), calculated in both pecuniary and non-pecuniary forms. Hence, risks and uncertainties are acknowledged but assumed to be factored into estimated future incomes and costs (Katz and Stark, 1986). Typical of this approach is Sjaastad (1962) who considers that individuals perform what is, in effect, a cost-benefit calculation in relation to their human capital in different locations.

Empirical research on human capital models has sought to explain the distribution of the migration/staying decision – that is, who migrates to where, and who stays - in relation to individuals' human capital (Borjas, 1987), controlling for socio-economic characteristics. This is a rich and well developed research tradition which acknowledges that risk informs migration decisions, but it treats risk as a 'black box' concept. It also assumes that migrants are rational decision makers acting on the basis of minimally reliable 'market' information.

More recent research on bounded rationality, especially on how individuals simplify complexity in the face of uncertainty (Tversky and Kahneman, 1974: 35), allows some of these deficiencies to be addressed. Several heuristics developed in generic research in behavioural economics seem to have particular relevance for understanding migration. For example, 'anchoring' (Kahneman and Thaler, 2006: 223) involves making a two stage estimate of an outcome in the face of uncertainty. First, forming an estimate from an initial value, that is evident either from the formulation of the problem, or from a partial computation. For example, a migrant to

the USA may estimate the expected wage that (s)he will earn in say Maine, based on information about the wage earned by a friend or relative in New York. In the second stage, the initial estimate is revised in the light of particular circumstances, in this instance downwards on account of expected but unknown urban-rural wage differentials. Exploration of the nature of bounded rationality is a potentially fruitful area for further research on migration and risk, because heuristics provide approximations of many of the processes involved in migrant decisions making, in the face of limited knowledge and uncertainty.

Human capital theories do also address aggregate or macro outcomes to some extent in terms of the international redistribution of human capital. They do not explicitly theorize or model the role of risk, although this underlies concepts such as 'brain drain' (Bhagwati and Hamada, 1974). Where they do recognize risk as potentially important, it is assumed away in 'risk neutral' terms (Beine et al., 2001: 279).

Risk tolerance and aversion

Behavioural economics and economic psychology emphasize that individual decision making is influenced by individuals' psychological profiles (Mehta, 2007), and of particular interest are the notions of risk aversion and risk tolerance. There is a considerable generic research on this approach, associated with the work of Tversky and Kahneman (1974) and their associates. That literature largely focuses on financial investment and health issues, with empirical research being largely based on laboratory simulations, for example, asking individuals to respond to hypothetical, investment or gambling options.

Only recently have researchers begun to explore whether risk tolerance/aversion influence individual migration decisions and behaviour. It is difficult to prior theorize the direction of influence of risk aversion/tolerance on migration (Jaeger et al., 2007). At first sight, it seems obvious that as individuals have less knowledge and more

uncertainty about conditions in a destination, more risk averse individuals would be more likely to migrate, *ceteris paribus*. However, it would also be consistent for more risk averse individuals to be more likely to migrate if there was less risk or uncertainty attached to incomes in the destination than the home country.

Few empirical studies have sought to quantify the relationship between risk aversion/tolerance and migration. Heitmueller (2005) found that risk averse individuals are less likely to migrate but does not estimate how migration propensities are determined. Probably the most comprehensive research on migration has probably been undertaken in Germany, using German socio economic panel data which incorporate direct measures of both risk and internal migration. Jaeger et al (2007: 3) found that the willingness to take risks explains (or perhaps is associated with) a significant part of the variance in migration intentions, after controlling for socio-economic differences. Interestingly, they also discovered that risk tolerance/aversion were more effective in explaining the decision to migrate/stay, as opposed to how far to move.

Some of the empirical findings of the generic research on risk tolerance/aversion are also potentially interesting to migration researchers. There is only room here to emphasize a few salient findings:

- Women are less willing than men to take risks (Hartog et al., 2000; Jaeger et al., 2007).
- Willingness to take risks decreases with age (Donkers et al., 1999; Dohmen et al., 2005). Young adults and teenagers are more likely to be not only more risk tolerant but may also be risk seeking in their migration behaviour and intentions.
- More educated individuals, or those with more educated parents, are more willing to take risks (Dohmen et al., 2005, 2006; Jaeger et al., 2007).

- Willingness to take risks varies across countries, even amongst the more developed economies. For example, Fehr et al. (2006) provide evidence Germans are less willing than Americans to take risks. And risk averse migrants are more likely to decide to move to countries with stronger welfare systems and reduced risks associated with unemployment (Heitemuller, 2005).
- Risk attitudes seem to be correlated across generations, which may partly account for the persistence of differences in risk aversion/tolerance amongst countries. The causes or mechanisms of such inter-generational transfers are not known, and potentially contentious.

These findings are significant for migration although they identify statistical associations rather than provide evidence of causality. Another interesting issue arising from this research framework concerns how risk aversion/tolerance change over the course of the migration cycle. Do migration experiences modify willingness to take risk, perhaps as a result of enhanced risk resilience or increased experience of building social networks which reduce risk levels for individuals in the external environment (Brunnermeier and Nagel, 2005)? Arguably, successful migration experiences do provide learning experiences which do make migrants more risk tolerant when considering further migration. However, Jaeger et al's. (2007: 13) findings appear to contradict this: they undertook ex ante and ex post regressions in relation to when the risk question was posed in their panel data, while controlling for previous migration in the post ante analysis. The results indicate stability in risk tolerance over time. This research is, however, limited in that the measures of risk tolerance employed are generic, rather than migration specific, which is more likely to be the locus of any changes in willingness to take risk. Although there is a lack of other empirical evidence to confirm Jaeger et al's findings for migration, we can draw on Sahm's (2007) work on attitudes to risk in employment. Although there was a

moderate decline of risk tolerance with age, and changes over the business cycle, there was overwhelmingly a well-defined and relatively stable set of risk preferences, accounting for 80% of the variation in their data. Neither changes in wealth and income, nor personal events, have significant impacts on willingness to take risk; instead, there is 'constant relative risk aversion' over time, while there are 'large stable differences across individuals in their risk tolerance type' (Sahm, 2007: 15).

The risk tolerance/aversion framework provides rich theoretical insights for migration studies to explore. For example, individual preferences and decision taking are affected by 'source preference' (Tversky and Fox, 1995), understood as the level of trust in the sources of knowledge about risks. A migrant may migrate to country A rather than country B, although there is more risk of unemployment in the former, because the source of knowledge about such risks is a trusted friend. Another important insight is 'ambiguity aversion' or a preference for risk over uncertainty, especially in comparative rather than in separate evaluations of alternatives (Fox and Tversky, 1995: 585). If migrants are faced with broadly similar economic prospects in two countries, but there is greater uncertainty about the likely outcomes for them in country C, they will be more likely to select country D where the risks are known. In contrast, when C and D are evaluated separately, the migrant may not display a clear preference for the less ambiguous choice.

The levels of explanation provided in most research on willingness to take risk is relatively low even where significant relationships are identified. Nevertheless, this does make an useful contribution to migration research. As Massey et al (1993: 456) argued in their seminal review, it has remained difficult to express the probability of migration convincingly 'as a function of individual and household variables'. Analysis of socio-economic characteristics may identify which social groups are more likely to migrate, but they can not explain why only some individuals within these groups

become migrants. Incorporating risk aversion/tolerance differences into such models makes them more realistic, while enhancing their explanatory powers.

Households and risk diversification: the new economics of migration

One of the most fertile areas of explicit theorising of risk is the new economics of migration which argues that households minimize risks in multiple markets (Stark and Bloom, 1985). As Massey et al. (1993: 436) summarize, migration can be seen as a response to gaps in private market insurance against risk:

‘Unlike individuals households are in a position to control risks to their economic well being by diversifying the allocation of household resources such as family labour. In developed countries, risks to household income are generally minimized through private insurance markets, or government programs, but in developing countries these institutional mechanisms for managing risk are imperfect, absent or inaccessible to poor families, giving them incentives to diversify risk through migration’.

Risk reduction is accomplished by diversification, taking into account not only the distribution of returns from different occupations – and, for our purpose, in different locations - but also the correlation of these returns (Stark and Levhari, 1982). While an individual migration act might be highly risky, such as undocumented migration to necessarily precarious employment in another country, it could reduce the risk to *household* income if the returns were not correlated with the household’s other income sources (Roberts and Morris, 2003). There is an important point of divergence here with human capital theories. Whereas the latter imply that the earnings differential between two locations that are required to stimulate individual migration take into account risk, the new economics of migration argue that it is not

illogical for individuals to migrate to areas with lower incomes or higher risks, if this reduces overall household risk.

The new economics of migration has been extensively explored empirically. For example, both Benjamin and Brandt (1998) and Taylor and López-Feldman (2007) find evidence that migration is instrumental in loosening risk constraints on household investments in various production activities over the longer term. Miller and Paulson (1999) demonstrate that Thai remittances are higher when the receiving household's income is lower, perhaps due to below average rainfall. They conclude that government policies that influence risk, such as unemployment insurance or crop price guarantees, can influence migration, although this is undermined to the extent that migrants face uncertainty rather than risk. However, Dustmann (1997: 297) has modelled how migrants jointly determine their savings levels and length of migration in the face of uncertainty; precautionary savings are likely to be accumulated by migrants who face higher levels of risk than non-migrants in either the host or destination country. The key point for our purpose is that '... income is not a homogenous good, as assumed by neoclassical economics. The source of the income really matters' (Massey et al., 1993: 439) especially under conditions of risk and uncertainty.

SOCIOLOGICAL THEORIES

The economics approaches focus mainly on the individual, or the individual household, as a decision-making unit, based on varying assumptions relating to the extent of bounded rationality. Sociological theories provide more collectivist, and more social constructionist approaches, with the latter understanding risk to be '... discursively constructed in everyday life with reference to the mass media, individual

experience and biography, local memory, moral convictions, and personal judgements' (Zinn and Taylor-Gooby, 2006: 54). Three main sociological approaches are discussed here: risk and culture, risk society and governmentality.

Risk and Culture: groups, identities and social embeddedness

The essence of this approach is that '... the individual's perception and response to risk can only be understood against the background of their embeddedness in a sociocultural background and identity as a member of a social group, rather than through individual cognition' (Zinn and Taylor-Gooby, 2006: 37). A classic example is how perceptions of the risk involved in migrating to the West of the USA in the nineteenth century were informed by changing social constructions of the notion of 'wilderness'. This approach recognizes that individuals accumulate knowledge about risk over the life course, through highly time and place specific social interactions (Macgill, 1989).

One important strand in this research framework is the work of Mary Douglas who, in her ethnographic studies in Zaire, challenged the objectivisation and technologicalisation of risk (Zinn, 2004a). Instead, she considered risk to be 'a social construction in a particular historical and cultural context' open to different social interpretations (Douglas and Wildavsky, 1982: 6-7). Douglas' work is particularly known for its typology of risk rationalities (Douglas, 1992) based on grid and group. 'Grid' describes the extent to which norms structure action while 'group' indicates the degree of group cohesion: these define four ideal types - fatalism, hierarchy, individualism and egalitarianism.

Each of these idealized types arguably can be associated with different migration risk rationalities. Fatalism is characterised by non action and individualism and associated with non migration. Individualists favour a market culture and are explicitly

risk takers with respect to migration, given they are governed more by individualism than by group norms, that is more by independent risk taking and taking control over their own lives. The 'hierarchical' type is characterized by strong social cohesion, and low freedom of movement, which may be significant in more collective migration possibly as part of household or community regulated migration. The 'egalitarian or enclave' type is characterized by strong social cohesion and high degree of freedom to take risks and here the migration implications are less clear. There is potential to explore this typology further in relation to migration, but many researchers caution that the idealised types are '... too schematic to grasp the complexity of social life' (Zinn and Taylor-Gooby, 2006:39).

Inevitably, these ideal types have been criticized for oversimplifying the complexities of risk and culture, leading to calls for a more multi-layered approach to risk (Zinn and Taylor-Gooby, 2006:39). An important strand of this centres on identities and membership of cultures and sub-cultures: individuals with similar levels of risk tolerance may act differently depending on the risk tolerance of the groups that they identify with (Tulloch and Lupton, 2003: 1.). By extension, the decision to migrate in the face of risk and uncertainty is also influenced by identification with group members (Huitemiller, 2005).

One of the implications of seeing risk and migration as being socio-culturally embedded is that 'Risk knowledges, therefore, are historical and local. As a result, risk knowledges are constantly contested and are subject to disputes and debates over their nature, their control and whom is to blame for their creation (Tulloch and Lupton, 2003: 1). Some of these themes, are reflected in the very different theoretical perspectives of the risk society, although the conclusions drawn are radically different.

Risk Society: a framework for migration research?

Ulich Beck's 'risk society' thesis is probably the best known recent attempt to theorize risk, and it sees risks as both real and socially constructed. Risk comes into existence when '... the hazards which are now decided and consequently produced by society undermine and/or cancel the established safety systems of the welfare state's existing risk calculations' (Beck, 1999: 77). Of course, Beck recognizes that major risks existed in earlier periods, from plague for example. But risk is now an '... expression of highly developed productive forces. That means that the sources of danger are no longer ignorance but knowledge; not a deficient but a perfected mastery over nature' (Beck, 1992: 183). This is exemplified by the exponential growth of new technology which poses risks that are not fully understood, and can not be controlled. Moreover, risks have become less temporally and spatially bounded and display 'a tendency to globalization' (Beck, 1992: 13). This can be understood in terms of a shift from risk to greater uncertainty: '... where the outcomes are uncertain but which cannot be handled through traditional methods of risk management (relying on nuclear family support; insurance) (Taylor-Gooby and Zinn, 2005: 19).

Does risk theory provide a framework for migration and risk studies? Tulloch and Lupton (2003: 41) are doubtful because Beck's risk society is too focused on the 'cataclysmic democracy' of catastrophic environmental hazards to deal adequately with how societies deal with, say, 'the risk associated with mass immigration'. This is probably too negative because there are links between failure to control risks associated with technological changes and migration. This is exemplified by the links between climate change and the risk of potentially massive environmental refugee movements (Piguet, 2008). Another example is forced migration in response to site-specific technological disasters, such as Chernobyl, an apparently localized event but actually subject to 'a tendency to globalization' (Beck, 1992: 13). This appears to be a classic example of 'poverty is hierarchic, smog is democratic' (Beck, 1992: 36), in

that Chernobyl has risk implications for all social classes. However, how social groups respond to such risks still depends on social class (age, gender and ethnicity as well) whether in terms of having resources to avoid living in the shadow of nuclear reactors, or capacity to flee rapidly in the face of disasters.

The problem with risk theory, as Tulloch and Lupton (2003) argue, is a failure to grasp the complexity of risk in everyday life. Migration and refugee movements have multiple determinants including technological changes, economic pull and push factors, war, disease, famine and natural disaster, as well as socio-cultural considerations. Moreover, the long history of migration is of human responses to risks, which can not easily be periodised in terms of pre- and post- risk society as suggested by Beck (1992: 19). For example, in relative if not absolute terms, migration levels in the early twentieth century – in response to risks associated with grinding poverty and socio-cultural repression - were broadly similar to those observed in the late twentieth and early twenty-first centuries (Chiswick and Hatton, 2003). Technology changes – let alone capacity to manage the risks associated with these - map poorly onto this picture. Transport innovations (related to railways and shipping) were probably even more important in the earlier migration peak than in the more recent one, partly associated with air transport technology changes.

However, transport technology shifts, and especially organizational innovations related to low cost carriers, have changed the environment for temporary migration, and other forms of short term mobility (Williams and Baláž, 2009). Whether such shifts lend themselves to interpretation within a risk society framework remains in question. It is true that increased human mobility has been associated (uncritically) with drugs smuggling, trafficking, and terrorism (Edwards, 2009). In so far as this can be linked to failure to control risks in late modern society, the risk society thesis may provide useful insights. But the key issue is how such discourses are constructed and the nature of governance which consider in the next section. Moreover, the picture is

complex: while migrants may be ‘ ... constructed as “Other”, as potentially polluting, and thus requiring control and containment’, they can also be constructed as fascinating and attractive ‘ ... because of their very “Otherness”’ (Tulloch and Lupton, 2003: 42)

While this critique raises doubts about the value of Beck’s macro view for migration studies, his individualization thesis appears more promising. The lessening of the value attached to class and estate-specific knowledge is seen as leading to orientation uncertainties and detraditionalization. There is ‘a social surge of individualization’ (Beck, 1992: 87) and biography has become a reflexive project that is ‘self-produced and continues to be produced’ (p135) by individuals. This resonates with Rose’s (1990: 15) earlier work on being resourceful as part of the ‘motives of self fulfillment’. These ideas have been extended in the concept of edgework, which engages with positive evaluations of risk: ‘Confronting and responding to uncertainty is what edgeworkers value most, even as they devote significant effort to managing risks in order to reduce the likelihood of hazardous outcomes’ (Lyng, 2008: 109). This is evident in growing preferences for riskier lifestyles, whether in the realms of work or leisure, due to the ‘seductive power of the risk experience’ (p120). The ‘work’ in edgework is understood as developing personal competences in managing risk and uncertainty.

Some types of migration, typically those seeking adventure or challenges (perhaps student migrants, the Big OE from Australasia, or some forms of backpacking), can be understood as edgework. These migrants positively value the risk and uncertainties posed by migration, and especially the opportunity to develop skills in managing these. This provides not only greater self esteem in having successfully managed these risks, but also contributes to peer esteem and enhanced CVs in the labour market;. These types of migration seem to be consistent with the notion of individuals taking greater responsibility for their own life trajectories and careers, as

expounded in the 'individualization thesis' (Beck and Beck Gernsheim, 2002). For example, King and Ruiz-Gelices (2003: 232) argue that student exchange schemes offer potential to elevate 'normal' biographies via geographical and social mobility into an elective or 'do it yourself,' biography.

Although the individualization theory is superficially attractive for conceptualizing some types of migration, such as student migration, it is also problematic. For Beck (1992: 127-8), this there was a process triple individualization involving 'disembedding from ... historically prescribed social forms and commitments', disenchantment, and re-embedding in new types of social commitments. Such a view sits ill at ease with notions of transition and hybridization in migration, let alone the persistence of historical forms of embedding within and between societies.

The individualization thesis can also be read as romanticising the liberation of individuals from traditional social ties, whereas in reality there are new forms of risk and '... the elective biography can all too easily become "the breakdown biography"' (Zinn, 2008: 33). This may be society without social structure. Yet, as Abbot et al (2006: 240) found in their meta review of risk and security in the labour market, while individuals may become more reflexive about risks, and may counter these in highly individualized ways, both reflexivity and the distribution of risk and insecurity are '... highly dependent on socio-economic factors and existing inequalities' (p240). Similarly, while Baláž and Williams (2004) and Williams and Baláž (2004) found evidence for reflexivity and taking responsibility for biography amongst, respectively, students and au pairs, they also considered these was mediated by structural considerations, such as subsequently working in the private versus the public sector, education and region of origin. This is consistent with Lupton and Tulloch's (2003) more general findings about the complexity of risk and behaviour. In a similar vein, Lash (2000) emphasizes that complexity, contradictions and ambiguity are far more important than is suggested by the risk society thesis.'

Governmentality, risk and migration

Douglas (1992: 7) writes that 'Certain marginalized groups are identified as posing risks to the mainstream community, acting as the repository for fears not simply about risk but about the breakdown of social order and the need to maintain social boundaries and divisions'. These risk concerns feed though into the policy domain, and Jenkins (2007: 2) demonstrates how notions of risk 'colonize' UK immigration controls and asylum policy.

Douglas did not address how these risks are identified and managed in modern societies. One approach which has particular leverage in migration studies is governmentality. This draws particularly on Foucault's (1991) focus on the practices rather than the institutions of governments (but see Dean, 1999 on other readings of governmentality). This is linked to his argument that power is not so much concentrated in governments but is widely distributed across society through the practices and discourses that produce knowledge. Zinn (2004a) explains how the very notion of risk (as calculable) and risk management became more important with the emergence of modern nation states which sought to calculate the probabilities, or risks, of changes in, for example, birth rates, the extent of epidemics, or unemployment across the business cycle. The key point is that '...it is not a specific event that constitutes a risk, but its description as part of a risk calculation make it a risk' (Zinn, 2007: 17). Moreover, studies of groups considered 'at risk', such as 'youth', indicate how '... generalized social categories in institutional and media discourses produce homogenous groups in relation to risk' (Zinn, 2004a: 12) which ignore their diversity.

In migration studies, these ideas apply particularly to the categorization of groups such as refugees, illegal migrants and especially trafficked individuals. Governments do play a role in this and Edwards (2009: 9), for example, argues that both the EU

Commission's first political assessment of progress on the implementation of the Hague Programme and the UN's National Convention against Transnational Organized crime bundle together crime, terror and immigration, thereby feeding 'a culture of fear'. However, government are just one actor in this process and, as Foucault argues, power is distributed across society – in the media, in NGOs, in local community groups, amongst others. They all play roles in defining the risks associated with migrants, or in categorising 'risky migrants', and thereby simultaneously define and produce these risks. This can be seen with respect to both migrant sex workers and trafficked migrants.

Agostini (2007) questions the social categorization of all migrant sex workers as unwilling victims, and argues that this fails to recognize that many individual sex workers can and do take decisions about the risks associated with their work. Similarly, Anderson (2008: 2) argues that 'The "illegal immigrant" is presented as either an exploited victim ("trafficked") or abuser of the system. This reflects a broader discourse on migration which separates foreigners into "good" and "bad" migrants: the hard working foreigner necessary for the economy, or the thief of jobs and opportunities'. Although she does not explicitly engage with the notion of risk, this is significant in creating knowledge and 'truths' in relation to illegal migration. In a powerful exposition of how social categories are produced, she also argues that 'The arguments become about state *identification* of victims, and the low numbers of those identified, as if they can be identified in the same way as blue-eyed people' (Anderson, 2008: 5). This is broadly in line with Foucauldian perspectives on how the creation of such categories is both informed and given meaning to by wider discourses in the media and elsewhere as to who are the 'real' (truthful) victims of trafficking, thereby emphasising the distributed nature of power in society. While there is an emerging literature on governmentality, migration and risk in destination

countries, little explicit attention has been given to migration and risk in origin countries in this framework.

CONCLUSIONS

This paper argues that risk pervades the migration literature yet is poorly theorized, mostly being asserted or analysed implicitly, as in human capital research, rather than explicitly. Moreover, the relationship between risk and migration is multi-faceted. Migration can be risk generating, risk informing, and risk ameliorating. In other words, there are differences between *risk taking* and being *at risk*. There are also differences in whether migrants are seen as reflexive and actively shaping their migrations, or passive in the face of 'implacable or inevitable processes' (Horbaty et al., 2006: 4). We have also seen that risks are not always viewed negatively, as a cost; for example, 'edgeworker migrants' actively seek out risks to develop competence in managing these (Tulloch and Lupton, 2003). One reason for the limited direct analysis of risk in migration is lack of engagement with theories of risk. As this review indicates, the diversity of risk in migration is matched by diverse theorizations of risk that can and need to be engaged with.

Our starting point was the importance of differentiating risk and uncertainty. While Knight (1921) provides an useful, and widely used distinction, between known and unknown uncertainties, in practice these overlap: migrants have partial knowledge of possible outcomes. The difficulties for individuals, of course, lies in knowing whether they face risk or uncertainty, that is in knowing what they do know and don't know – both about the destination and the origin, as well as the process of migration, particularly if irregular. Until it is known whether migrants *perceive* they are dealing with risks or uncertainties, or some combination of these, it is difficult to theorize and clarify the role of risk in migration. This also poses the question of whether

technological changes - particularly the growth of the web, mobile communication systems and low cost air travel - have rebalanced risk and uncertainty for migrants.

The paper has focussed on probably the two most fertile areas of theorising about risk, economics and sociology, while excluding other areas notably psychology and risk management. The six theories reviewed differ in at least three important ways. First, whether they assume rational and fully informed decision making (human capital theories) or bounded rationality (willingness to take risk) or that behaviour is contradictory and risks are ambiguous. Secondly, whether the analytical scale is the individual (human capital or willingness to risk theories), or the household (new economics of migration or Douglas' cultural theory), or societal (risk theory, and governmentality). Thirdly, whether risk is understood as real and 'objective' as in most economics theories, or as socially constructed, as in most sociology theories – or a combination of both as in risk society. Some theories have been extensively applied to migration, especially human capital theory and new economics of migration, while others are only now being explored, such as willingness to take risk and governmentality. Others, such as Douglas' cultural theory and risk society, have hitherto had little impact on migration research.

This review provides several pointers for an agenda for research on migration and risk. The first, already indicated, is whether migrants understand their decision making in context of risk or uncertainty, or where they are located on the continuum between these. This raises questions about which elements of risk individuals focus on. And do individuals focus on the 'normalized' range of expected or foreseeable risk, as opposed to extreme events, such as death, destitution or incarceration? One approach this is through the heuristics developed in behavioural economics, such as availability, anchoring and affective forecasting (Tversky and Kahneman, 1974), to analyse how individuals simplify the complexities of risk. Source preference (Tversky

and Fox, 1995) in relation to knowledge about migration and destinations is another important area for research.

Secondly, we echo Massey et al's. (1993) call to go beyond the predictions of who migrates that are provided by modelling socio-economic characteristics. Why, within particular socio-economic and socio-demographic categories do only some individuals become migrants? And why do some households, but not others which are similarly socially situated in relation to risk, adopt migration to diversify risk? The risk tolerance/aversion literature offers one promising way forward here, and Jaeger et al. (2007) have demonstrated this explains a significant share of the unexplained variance in conventional modelling. Alternative explanations may be sought in analysing how individual attitudes to risk are shaped by the values of and identities within groups (Douglas, 1992), or in why some individuals embrace individualized and reflexive biography building in the face of risk (Beck, 1992), or can be understood as 'edgeworker' migrants (Lyng, 1998). Above all, however, we caution against oversimplification. Tulloch and Lupton's (2003: 133) work provides a salutary reminder that risk taking '... is far more complex than is suggested in most writings on risk' urging the need to embrace knowledge (for example, of the self) as well as ambiguity (see Best, 2008), contradictions and emotions. Whichever approach is adopted, it is also important to note that migrants are not necessarily more willing to take risks than stayers – sometimes the latter involves higher risks.

Thirdly, how trust mediates how migrants engage with risk? Following Zinn (2004a) and Nussli (2002), we recognize that, in the face of risk or uncertainty, trust is key to action. 'Trust begins where knowledge ends' (Lewis and Weigert, 1985: 462). Given complete knowledge there is no need for trust, and given complete ignorance there is no basis for trust. In reality, all actions therefore depend to some extent on trust, whether or not consciously articulated, and this is particularly acute for migrants in the face of risk and uncertainty. However, this poses questions about how trust is

theorized because there are fundamental differences between how economists conceptualize trust in terms of reductions in transaction costs and how sociologists consider trust as given in advance and developed from shared values and routines (Anheier and Kendall, 2002, 347). These differences also reflect the individualist versus collectivist approaches to risk that characterize particular disciplines.

Fourthly, how do intermediaries reduce (which types of) risks associated with migration? These may be formal agencies (legal and illegal) or informal social networks. There is emerging work in this field, such as Koser's (2008) study of smuggling, but this area requires further theorization, perhaps drawing on 'source preference' (Tversky and Fox 1995), group dynamics and culture (Douglas, 1992) and theories of trust.

Fifthly, and turning to the relatively neglected macro scale, how do societies regulate risks? Governmentality clearly provides important insights into how the production of knowledge about the risks associated with migration – both for migrants and especially for host societies – come to define what are considered risks. Of course, as Foucault emphasizes, this is partly about the practices rather than the institutions of government, and the roles of government, NGOs, community associations, and the media still need to be disentangled in this respect. But there are also important questions related specifically to the management of uncertainty in modernism, in particular how the latter is translated in terms of risks that are calculable and manageable. Urry (2007), drawing on Deleuze (1995) hints at ways in which this can be theorized.

Finally, how can we explain the *generation and distribution* of risks that both inform and are informed by migration. This is an immense and, in many ways, the most important of questions. Beck's (1992) risk society thesis provides one perspective. Although largely neglected by migration researchers, some aspects merit further exploration especially in respect to real versus perceived risks, reflexivity, the lack of

trust in expert advice and the seeking of alternatives knowledge sources, and above all the failure to foresee and manage the risks associate by technological change. However, there are significant reservations about this thesis, both in the generic literature and its potential application in migration. This signals the need for a political economy of migration and risk which considers not only countries of destination *and* origin, but also risk interdependencies. Such a theory would also need to confront historicism, and could draw on theories ranging from evolutionary economics, to the collapse of complex societies, to structural theories. It would also need to be interdisciplinary, following the lead already provided by the overlap between behavioural economics and social psychology albeit within a hitherto relatively narrow range.

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