tao Digital Library

An international multidisciplinary paper series devoted to the study of organizational action, organizational change, and organization and well-being. Founded by Bruno Maggi.

ORGANIZATIONAL CHOICES AND OCCUPATIONAL HEALTH AND SAFETY RISKS PREVENTION. AN INTERPRETATION OF ITALIAN REGULATIONS

MICHELA MARCHIORI
UNIVERSITÀ DI ROMA TRE

VALENTINA ALBANO
UNIVERSITÀ DI ROMA TRE

FRANCESCO MARIA BARBINI
UNIVERSITÀ DI BOLOGNA

Abstract
The social and economic costs of risks produced by organizations are becoming more and more evident and relevant. Enterprises are expected (and, sometimes, obliged) to become able to efficiently manage the risks they induce: industrial hazards, financial uncertainty, environmental risks, risk to safety and health in the workplace, etc. By adopting an organizational perspective, this contribution investigates the approaches to Occupational Health and Safety risks prevention that are promoted by the law (specifically, by Italian law). The goal of this paper is then to discuss the consistency of the norms with respect to the objectives of risks prevention and to understand their actual and potential impact on business practices.

Keywords
Occupational Health and Safety, Risks Prevention, Risk Management, Organizational and Management Systems, Organizational Action.

Organizational choices and occupational health and safety risks prevention. An interpretation of Italian regulations. Marchiori Michela, Albano Valentina, Barbini Francesco Maria. Bologna: TAO Digital Library, 2012.

ISBN: 978-88-906740-9-9

tao Digital Library

The TAO Digital Library is part of the activities of the Research Programs based on the Theory of Organizational Action proposed by Bruno Maggi, a theory of the regulation of social action that conceives organization as a process of actions and decisions. Its research approach proposes: a view on organizational change in enterprises and in work processes; an action on relationships between work and well-being; the analysis and the transformation of the social-action processes, centered on the subject; a focus on learning processes.

TAO Digital Library welcomes disciplinary and multi- or inter-disciplinary contributions related to the theoretical framework and the activities of the TAO Research Programs:
- Innovative papers presenting theoretical or empirical analysis, selected after a double peer review process;
- Contributions of particular relevance in the field which are already published but not easily available to the scientific community.

The submitted contributions may share or not the theoretical perspective proposed by the Theory of Organizational Action, however they should refer to this theory in the discussion.

www.taoprograms.org
dl@taoprograms.org

Pubblicato nel mese di Novembre 2012
da TAO Digital Library – Bologna

Organizational choices and occupational health and safety risks prevention. An interpretation of Italian regulations

Michela Marchiori, *Università di Roma Tre*
Valentina Albano, *Università di Roma Tre*
Francesco Maria Barbini, *Università di Bologna*

Introduction

In the last decades, industrial hazards, financial instability and environmental disasters brought a significant shift in public sensibilities towards issues related to the risks produced by organizations.

Calls for a higher level of corporate responsibility led to the establishments of a multiplicity of regulations to provide coordination and direction for risk prevention and management.

External regulation systems of risk management are deemed essential strategies for preventing undesirable externalities of companies' activities from arising, against the limits of self-regulation (Smith, Tombs, 1995). The new regulation usually takes the form of mandatory "laws" and "standards" applied on a voluntary basis.

These norms and standards, ant their operational guidelines, produced by bodies directly delegated by the norms to translate normative principles into the practice, represent an essential reference for the enterprises that have to comply with laws or want to voluntarily apply them.

Regulation is then central to the discussion of the relationship between enterprises and management of risk; indeed, as Scheytt *et al*. (2006) highlight, the norms foster interventions for managing the risks and propose insights and directions for preventing risks from emerging. Above all, norms represent a significant decisional premise for managers since they contribute to the creation of a body of knowledge and of a set of formalized organizational and managerial practices that drive the managerial choice.

It follows that the study of the norms can represent an important means to

understand which approach to risk prevention is spreading among enterprises.

Even though many theoretical contributions have investigated Occupational Health and Safety (OHS) norms, this literature mostly focuses on juridical principles and on legal obligations and consequences. The legal perspective dominating the literature is obviously meaningful and necessary to understand the OHS framework, however it does not allow to understand the actual impact of the norms on managerial practices and, ultimately, their eventual effectiveness. In fact, OHS regulation has direct and relevant consequences on organizational choices and its ability in achieving its objectives (i.e. health and safety on the workplace) is dependent on the consistency of the decision-making processes performed by managers.

Hence, it becomes fundamental to adopt an organizational perspective to explain and understand OHS normative framework and, in particular, to assess and evaluate the norms' effects on enterprises. The adoption of organization theory and its analytical methodology to understand and explain the consistency of OHS regulations has been proposed by Maggi (1984/1990; 1997; 2003) and has been supported by theoretical reflections and empirical investigations developed within the Interdisciplinary Research Program "Organization and Well-being" (www.taoprograms.org; e.g. Fabbri, 2011; Maggi, 2006; 2011a; Maggi et al., 2011; Rulli, 1996; 2011a; 2011b). This paper investigates, on the basis of the mentioned organizational perspective, the approach to risk prevention promoted by Italian regulation and what are the actions companies have to (mandatory) or can (voluntarily) implement in order to comply with it. The goal of this contribution is to resume the available literature, then to analyze the concepts of risk prevention and of "organization model" conveyed by Italian regulation and to discuss the organizational choices related to the actual implementation of OHS norms. In particular, the reflection will highlight and explain the organizational dimensions invoked by the norms.

To this end, after detailing objectives and methodology, the first part of the paper illustrates an interpretative analysis of the European Directive, which established the general principles for the OHS protection in Europe, and the

legislative acts which have introduced the European law in Italy. In the second part of the paper, the description and interpretation of the Italian legislative act that introduces and regulates the company's crime for violation of OHS norms is addressed. A detailed discussion on the main issues arising from the analysis will conclude the paper.

Objectives and methodology

With reference to the subject of occupational health and safety (OHS), this paper presents an interpretative work on the Italian legislative framework for the prevention of two major categories of risk: (i) the risks to health and safety of workers and (ii) the risks of offence for violation of the OHS regulations, recently included by the Italian Legislator among the risks of crimes, carried out by the CEO, the top management, managers and their employees (e.g. corporate crimes, corruption, etc.). The rules of law to which we refer are: (i) the European Directive 89/391/EEC formulated by the European Council to encourage improvements in the safety and health of workers and to foster the homogenization of Member' States OHS practices and policies; ii) the new Consolidated Act on health and safety in the workplace (known as Decree No. 81/2008, as amended by Decree No. 106/2009) which - pursuant to Art. 1 of Law 3.8.2007, No 123 - reformed, unified and harmonized the provisions of many regulations on safety and health in the workplace adopted in the previous sixty years, and (iii) the Decree No. 231/2001 "Discipline of the administrative responsibility of legal entities, companies and associations without legal personality" that, for the first time in Italy, in accordance with international guidelines, considered the legal entity responsible, from an administrative point of view, for the crimes perpetrated by directors, officers and/or employees for the benefit of the organization.

The reason for focusing on these norms is threefold:

- Both laws seek to address (from different perspectives) OHS issues and try to limit the occurrence of accidents and diseases at work, which represent serious social and economic problems in Italy;

- They represent an effort to adapt Italian legislation to the European and International standards;
- They offer an interesting point of view on the relationships between organizational action and risk. In fact, these norms present a significant element of novelty since the Legislator has recognized the importance of organizational choices for the implementation of an effective system for the OHS risks prevention.

The emphasis on the link between organizational action and OHS protection has been welcomed by commentators, including jurists, as one of the most important innovations introduced by the Italian Legislator (Pascucci, 2011). Hence, the need for an analysis of the regulation according to an organizational perspective is particularly relevant. By understanding what is the concept of organization adopted by the Legislator, and how this latter interprets the relationships between organizational choices and OHS risk management strategies, it would become possible to assess the actual and foreseeable consequences of the norms (and to assess their effectiveness).

Starting from the detection of the interpretative perspective adopted by legislator to deal with the issues related to the OHS risks produced by enterprises, this paper will investigate:
- Which concept of risk is adopted by Legislator;
- Which concept of prevention is adopted and which actions and preventive measures, finalized to the risk detection and management (including risk evaluation) are suggested by OHS regulations;
- Which idea of organization prevails in OHS regulations and how the relationship between organization and risk is interpreted.

The interpretative work is conducted through an in-depth text analysis of the rules of law and of the guidelines produced to support their implementation (second-level rules).

The European Directive 89/391/EEC: the general principles for the OHS protection

The general principles of OHS prevention in Europe have been established by the Directive 89/391/EEC of 12 June 1989 formulated by the European Council to encourage improvements in the safety and health of workers. This framework Directive is the basis for a large number of "daughter directives" and has been transposed into National law by Member States. In Italy it has been first transposed into the Legislative Decree 626/1994 and, more recently, into the new Consolidated Act on health and safety in the workplace (known as Decree No. 81/2008, as amended by Decree No. 106/2009).

While defining the rules to be applied in the workplace ("general principles of prevention and protection"), this European legal act has introduced several fundamental and innovative principles.

The most basic principle of the European OHS legislation is the employer's obligation to provide for and improve the workers' health and safety with regard to all aspects of the workplace (Eichener, 1997). The security obligation imposed on the employer implies that he is not only obliged to satisfy all regulations but he has a direct responsibility towards the worker who, as owner of a fundamental human right (right to health), can take a legal action against him to exact the respect of this right (Tullini, 2010).

Further elements of innovation are: a) the introduction of the principle of risk prevention as a measure that the employer must take as part of their responsibilities (Art. 6, Par. 1); b) the obligation of risk assessment (Art. 6, Par. 3); c) the establishment of occupational health preventive services (Art. 7); d) the importance of information, training, consultation and participation of workers and their representatives (Art. 10-12).

Even though many scholars and practitioners have recognized the highly innovative character of this regulation defined as a "social directive" (Eichener, 1997; Walters, 1996), few seems to have grasped its very innovative contribution. As Maggi argues (Maggi, 1997), this contribution concerns the relationship between the health promotion in the workplace and the analysis

and the organizational design of the work situation. According to the author, the Directive radically innovates the previous regulatory framework, proposing a new idea of prevention, which requires a change in the practices of intervention in the workplace. Thus, we adopt an organizational perspective and we analyze the norm following the interpretation produced by Maggi, also supported by jurists (Pascucci, 2011) and occupational physicians (Rulli, 2011a).

According to this interpretation, the Directive 89/391 steers towards an idea of prevention that is *primary* (aimed at avoiding the risks before they occur in the workplace), *general* (targeting all aspects of the work situations), *programmed* (thought out beforehand in general terms and not episodically, following events detrimental to the health of workers) and *integrated* into the work design (Maggi, 1997; 2011a; 2011b).

This interpretation is derived from the first articles of the European Council Directive.

The idea of *primary prevention* is embedded in Art. 3 and Art. 6. According to Art. 3 prevention is "all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks". According to Art. 6, Par. 2 "The employer shall implement the measures …. on the basis of the following general principles of prevention: (a) avoiding risks; (b) evaluating the risks which cannot be avoided: (c) combating the risks at source; …". This article, then, establishes a hierarchical order of preventive measures to be adopted, and assigns top priority to the elimination of risks. This means that the intervention of prevention has to be primarily addressed to avoid introducing risks in the work situations and only secondarily to protect the workers by "existing" risks, that have been admitted to the workplace (*secondary prevention*).

Also the idea of *a general and programmed prevention* is embedded in Art. 3, that says "all the steps or measures taken or planned at all stages of work", and in Art. 6, Par. 2, Lett. g that includes among the measures to adopt "an overall prevention policy which covers technology, organization of work, working

conditions, social relationships and the influence of factors related to the working environment".

Finally, the need for the integration of prevention in work design can be deduced from the Art. 6. This latter, in fact, by establishing among the measures of prevention the respect for the principle of "ergonomic design" ("... adapting the work to the individual" - Art. 6, Par. 2, Lett. d), confirms that such principle should be adopted in the design of the work situation especially in relation to "the design of workplaces, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health".

This principle highlights the innovative relationship between health and organizational design promoted by the Directive: in order to avoid occupational risks, companies need to act "at the source", focusing on the choices that are source of risk, i.e. the organizational design choices of places, tasks, equipment and working methods (Maggi, 2006).

This specification of the relationship between prevention and organizational design can help to clarify the nature of the risk evaluation required by the employer, as provided in Art. 6, Par. 3 and in Art. 9 of the European Directive.

Within this framework, risk evaluation is considered as the main instrument for the identification of the measures of prevention (Art. 6) and for their implementation program (Art. 6, Par. 2, Lett. g; Art. 6, Par. 3, Lett. a).

If, as already anticipated, the measures of prevention established in the Directive first aim at respecting the principle of *avoinding* risks in workplace (Art. 6, Par. 2, Lett. a) and, second, at reducing risks' effect when they occur, then the risk evaluation (defined as "general investigation extended to every aspect of the entire work situation") should be firstly considered as the evaluation of *the possibility of occurrence of the risk* in selecting equipment, materials, and job definition (Maggi, 1997: 328). Therefore it should be conducted by analyzing and evaluating the conditions of danger of generated

by organizational choices that potentially may become sources of risk or of the possibility of risk occurrence, as Art. 6, Par. 3, Lett. a, c clearly says. Only in a second step, the evaluation can be understood as evaluation of the *existing risks* (Art. 6, Par.2, Lett. b), that are present in the workplace as admitted by previous organizational choices that have determined the conditions of occurrence of risks (Maggi, 1997: 328).

According to this interpretation, the evaluation established by the Directive has a twofold nature (Maggi, 1997): a) the evaluation of the possibility of risk occurrence (aiming at avoiding its manifestation) that encourages the adoption of alternative, risk free organizational decisions, as suggested by Art. 6, Par. 3, Lett. f (*evaluation for primary prevention*); b) the evaluation of the existing risks that encourages the definition of measures to eliminate the risk or reduce the exposure of individuals to hazardous conditions in the work situation (*evaluation for protection*).

In both cases, the activity of risk evaluation involves an investigation extended to every aspect of the work situation, based on scientific and formalized criteria and requires adequate knowledge and interdisciplinary skills of analysis, evaluation and work design. In this sense, Maggi (1997: 324-28; 2011a) argues that the European Directive establishes an *obligation to work analysis*.

The Italian legislation on occupational health and safety: an interpretative analysis

The current regulations concerning the protection of health and safety at work, are contained in the Legislative Decree no. 81/2008 (modified by the Legislative Decree n. 106/2009) "Consolidated Act on protection of health and safety at work" and in the ISPESL Guidelines.

Consolidated Act has been issued (a) to unify all previous rules of law regarding the health prevention in the workplace (including the legislative decree 626/1994 that implemented Council Directive 89/391/EEC into the Italian legislation) in a "Consolidated Act" and (b) to discipline and toughen

penalties for not compliant employers, with regard to the aspects of both the criminal liability of the employer and his subordinates and the administrative responsibility of legal entities for crimes of violation of OHS regulations committed by their employees.

ISPESL Guidelines have been developed since 1996 by the National Institute for Occupational Safety and Prevention - ISPESL (recently merged with the National Institution for Accidents at Work Insurances - INAIL)[1] in order to provide instructions for the implementation of Legislative Decree 626/94[2]. From then, they have been adopted by firms as the main reference for the analysis and the interventions related to prevention in the workplace. Thus, they are an important source for understanding the nature and the characteristics of the approach to the risk prevention promoted by the public bodies, designated by the Legislator to produce instructions for the implementation of the regulations, and widespread among the Italian firms.

According to the interpretation provided by Maggi (2011a; 2011b), Consolidated Act moves back in relation to the approach adopted by the previous national legislation (Legislative Decree no. N. 626/1994) and the European legislation (Directive no. 89/391/EEC) that inspired the national regulations.

Below we present the results of the interpretation of the legislative framework focusing on the concepts of prevention, risk and the resulting approach to risk assessment, organization and analysis of the work situation.

The idea of prevention

To evaluate the approach adopted in Consolidated Act is appropriate to compare the principles of prevention provided with those stated by the

[1] Law 30th of July 2010, no.122 that converted with amendments the D.L. 78/2010.
[2] The guidelines are divided into 16 volumes, our analysis is based on the volume no.1 "Assessment for risk control", see:
http://www.ispesl.it/linee_guida/generali/linee_su_626/doc1.htm

European Directive which, according to the Legislator, represents the reference regulation (Art. 1, Par. 1).

First, in Consolidated Act there is a shift from an idea of primary prevention, suggested by the Council Directive, to one of secondary prevention, that aims at identifying a set of preventive measures to manage the existing risks rather than at avoiding or preventing their formation through the analysis and evaluation of organizational choices (Maggi *et al.*, 2011).

This change of perspective with respect to the idea of prevention is detectable in the following items (Maggi, 2011a; Maggi, Rulli *et al.*, 2011):

- Changes in the definition of prevention. In fact, Art. 2, Lett. n, compared to the European directive and Legislative Decree 626, adds that prevention must consist of "necessary measures according to the peculiarities of work, experience and technique" - suggesting a restrictive interpretation. Furthermore, by deleting the sentence "measures taken or planned at all stages of the enterprise" it misses any references to programmed and general prevention.
- A change in the hierarchical order of "general protection measures" (Art. 15), which gives top priority to "risk evaluation".
- Definition of the concept of risk evaluation adopted. Art. 2 speaks of "comprehensive and documented evaluation of all the risks to health and safety of workers" (also including the so-called "emerging" risks such as risks of work-related stress); however it refers to risks "*present* in the organization in which they work".

Moreover, when the decree speaks of risks (see for instance Art. 9, 18, 25, 26, 28, 32, 34, 37, 70, 71, 80), it refers only to the "present" and "existing" risks and to "risk exposure" stating an idea of prevention that seeks to address the actual risks, i.e. occurring in fact since admitted by organizational choices instead of the idea of a continuous process aimed at fighting risks at the source, through the design of peculiar organizational solutions.

The idea of prevention intended as "risk management" appears to be further confirmed by some expressions used in Consolidated Act. Chapter III,

dedicated to the regulation of the protective measures and obligations of the employers, called "Management of prevention". Moreover, the term "risk management" is used in several critical points in the text (e.g. in Art. 2 that provides a definition of training and information; in Art. 30 focused on the organizational and management models). To highlight the change of perspective adopted by Legislator with respect to the previous regulations, it is sufficient to note that the term "risk management" has not been used by the Legislator in neither Legislative Decree 626/1994 nor the European Directive.

The idea of risk and the approach to risk evaluation

The idea of secondary prevention that emerges from the text analysis of Consolidated Act is confirmed and strengthened by the practice of risk analysis contained in ISPESL Guidelines. As shown in the Introduction, the drafters of the Guidelines suggest the adoption of a methodology internationally known as "risk analysis and assessment", following an approach that represent the theoretical and methodological reference for agencies and institutions responsible for health and safety policies at both European Community and international level[3].

Indeed, at the international level, the sentence "risk analysis and assessment" refers to a large and varied set of procedures, techniques, and practical tools adopted by multiple disciplines (e.g. engineering, medicine, chemistry, biology, agronomics, etc.) and developed in areas such as planning, design, system integration, prototyping, and construction of physical infrastructure, quality control, maintenance, occupational risk prevention (Marhavilas *et al*. 2011).

Despite the variety of procedures and techniques used, all methods of "risk assessment" share the same vision: a vision based on criteria of *required*

[3] The Occupational Safety and Health Administration (OSHA) refers to the risk management approach known as "Cycle of control" (Cox, Griffith, 1995). This schema was introduced in the manufactory industry to evaluate and prevent physical risks and then extended to all types of risks. This method involves the following steps: Hazard identification; Assessment of risks associated to these hazards; Implementation of appropriate control strategies; Monitoring of the effectiveness of control strategies; Re-evaluation of risk.

causation between hazards defined as "an attribute of substances, processes, tools, which may potentially cause harm" and onset of risks and criteria of *probabilistic causation* between the presence of dangers and possibility of manifestation of damages (Fabbri, 2011).

Risk is then defined as a quantifiable and measurable phenomenon (Gephart *et al.*, 2009). In fact it is conceived as "a measure under uncertainty of the severity of a hazard" (Høj, Kröger, 2002) or a "measure of the probability of the harmful event associated with the magnitude of its impact" (Haimes, 2009).

Following this approach, the procedures adopted for assessing risks are generally composed by two stages: a phase aimed at identifying the work hazards, carried out starting from the recognition of risk factors present in the unit of analysis (*risk analysis*), and a phase aimed at measuring / quantifying the extent of risk to which workers are subject, and at assessing the probability of occurrence of adverse events and their severity (*risk assessment*). These procedures differ in the techniques and tools used (the first qualitative, the second quantitative).

For the analysis of ISPESL Guidelines procedures we follow the proposal of Fabbri (2011). The procedure of risk assessment described in the guidelines consists of five stages.

The first stage is a careful analysis of the work situation in order to identify *the risk factors* to health and safety of workers. The relationship between risk conditions and their determinants is inferred on the basis of available knowledge - laws, results of epidemiological studies, technical standards (Fabbri, 2011: 55). Relevant for this activities are also the knowledge and experiences of workers. Indeed, workers are actively involved in the risk assessment procedures, not only because it is suggested by the Italian OHS regulation (as established by the European directive) but mainly because the employer needs the workers knowledge to analyze the workplace. Therefore the "workers participation to the risk evaluation" promoted by both the regulation and the Guidelines is, actually, a request of collaboration needed to exploit their essential knowledge and information.

The Guidelines do not ignore the difficulties of this assessment and suggest to "reconcile" the need for exhaustive evaluation (as required by Consolidated Act, which speaks of "a comprehensive and documented assessment for all risks") with the need for the identification of the main problems of prevention, related to the specific business. To facilitate the identification of risk factors, the ISPESL Guidelines, following the European approach, provide a structured classification of both the risks (environmental hygienic risk; chemical, physical and biological risk; psychosocial or otherwise defined, organizational risk) and the causal conditions related to them (defined as risk factors or hazards). Even if these guidelines warn operators on the purely illustrative and not exhaustive nature of the proposed checklists that "do not replace the knowledge and the relevant information held by workers on the specific conditions of risk", such checklists are often applied *to the letter* by enterprises.

The second stage is the "identification of exposed workers" (individuals or homogeneous groups of workers), while the third stage is the "assessment of the levels of exposures to hazards" for various groups of workers. This evaluation can be performed with a simplified procedure - i.e. "approximate" assessment, to be carried out through inductive methods (amount of material used, cubature and ventilation of rooms, etc.) or semi-quantitative (timing and frequency of work) - or with more complex indicators (e.g. industrial hygiene measures), often required by specific regulations (see, for example, legislation on asbestos, treatment of carcinogens, lead etc.) (Fabbri, 2011: 56).

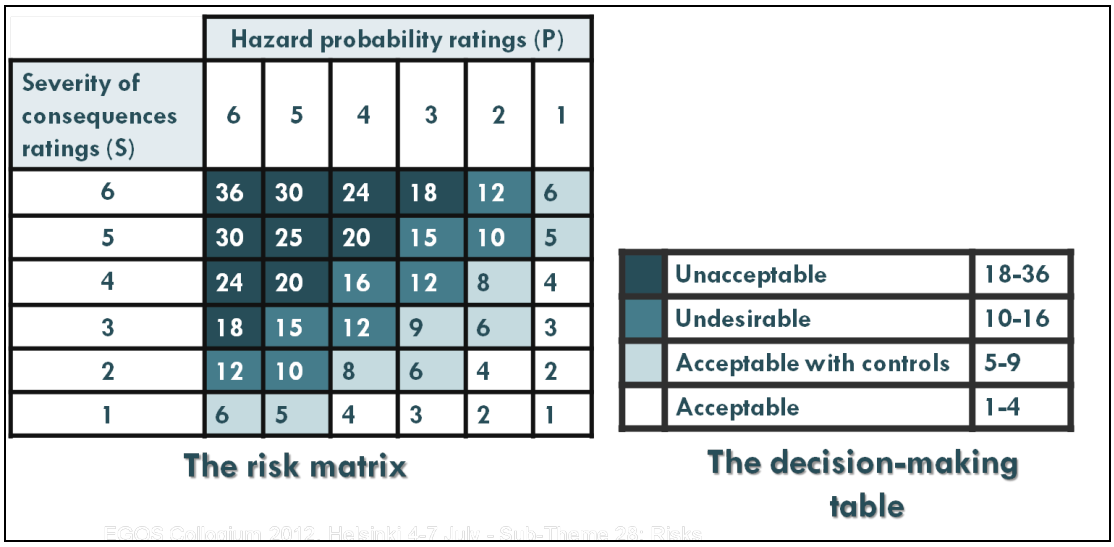
The fourth stage is the "estimation of risk of exposure", which consists of measuring and categorizing risks by taking in account the probability of occurrence and the severity of consequences. This is the stage of risk assessment in a strict sense, since the risk is defined, following the EC guidelines, as "the probability of achieving the level of potential damage when there is a use of or an exposure to a specific factor".

The combination of a consequence/severity and likelihood range, gives us an estimate of risk (or a risk ranking). More specifically, the product of severity

(S) and likelihood (P) provides a measure of risk (R) which is expressed by the relation: R= S x P.

To define these aspects, the guidelines suggest to refer to the codes of practice or the results of epidemiological studies and the Occupational Exposure Limit Value (OELV). Some OELV are provided by specific regulations (such as those regarding the exposure to noise, lead, asbestos).

Once the hazards have been identified, the question of assigning severity and probability ratings must be addressed. The guidelines propose to adopt techniques for the estimation of the risk, such as "The decision matrix risk-assessment" - DMRA - (Marhavillas *et al.*, 2011) that support the development of a risk classification (the fourth step) to define a priorities scale of measures to be taken (see Figure 1).



Severity of consequences ratings (S)	Hazard probability ratings (P)					
	6	5	4	3	2	1
6	36	30	24	18	12	6
5	30	25	20	15	10	5
4	24	20	16	12	8	4
3	18	15	12	9	6	3
2	12	10	8	6	4	2
1	6	5	4	3	2	1

The risk matrix

Unacceptable	18-36
Undesirable	10-16
Acceptable with controls	5-9
Acceptable	1-4

The decision-making table

Figure 1: The decision matrix risk-assessment technique (Marhavillas *et al.*, 2011)

According to this classification, for instance, the risk of accident with fatal consequences, although unlikely, must be a priority in the planning of preventive measures (ISPESL Guideline point 2.5.4).

After the risk assessment, the fifth stage concerns the identification of the measures of prevention and the planning of interventions, as established in the Art. 15 of Legislative Decree 81/2008 and subsequent amendments. To this end,

it is important to verify the security measures already in place and their effectiveness: the Guidelines suggest, in fact, to program interventions "for the high and not adequately controlled risks" or "for the risks currently controlled but that will increase in the future" or for which the control systems need to be changed or can be improved.

The risk assessment process promoted by ISPESL Guidelines covers the existing risks as a result of the exposure to risk factors admitted by the choices of organizational design. The resulting measures to protect workers may lead to the elimination of the risks present in the work situation and/or, more frequently, to practices of risk reduction, realized through measures in order to limit exposure of workers to potentially harmful agents.

Focusing on the work situation in place and defined by previous organizational choices, the ISPESL procedure "preclude, *ab origine,* primary prevention" (Fabbri, 2011: 58). Not including the obligation to analyze and evaluate the organizational design choices, it does not allow to trace the sources of potential harms, and to assess neither the potential hazard of each of them (i.e. the objective possibility of producing risks of each of the elements placed in the work situation) nor all their possible and not enumerable combinations (Maggi, 1997; Rulli, 2011a).

The concept of organization and analysis of work situation

One additional element that confirms the focus on secondary prevention is the concept of organization and work situation adopted by the Legislator. The conception adopted can be detected from the terms and the language used in the text of the norm.

For example, the Legislator refers to the organization in terms of "organization of work", considered as the configuration data of tasks, duties, work-rate, working hours, etc. These elements, also called "factors of work organization" or "organizational factors" (Consolidated Act, Art. 15, Par. 1, Lett. b) are considered as risk factors or hazards to the health of workers

distinguishing them from other factors such as the materials, equipments, space, chemical, physical, biological.

This language reflects the widespread and prevailing vision of the organization considered as "entity" (set of people, places, tools) or as "given situation". This interpretation of the organization prevents from understanding that chemical, physical work factors as well as tasks, schedules and methods of implementation, are inevitably the result of previous choices of human action, choices that organize work processes (Maggi, 2006). An alternative interpretation recognizes the organization as an "action that organizes" the whole work situation and its both material and human individual aspects (Maggi, 2003). This idea allows understanding of the conditional aspects of the onset risks related to previous or ongoing organizational decisions rather than to "factors" or "agents".

Furthermore, if we conceive the risk as related to "factors" or "hazards", and not to previous choices that have admitted it in the work situation (organizational choices), we can induce the idea that risk is inherent in the job and that is not possible to design and configure work situations without risks and/or with lower levels of risk (Maggi, Rulli *et al*., 2011); risk can only be managed.

The adopted idea of work situation is the premise for the interpretation of the method of work analysis on which the risk assessment is based. Consistently with the idea of organization as a set of elements data and predefined, ISPESL Guidelines propose a procedure aiming at recognizing risk factors present in the unit of analysis.

Although ISPESL Guidelines recognizes the need for complex analysis, due to the existence of non-specific risks (whose origin cannot be clearly determined and attribute to specific risk factors), they appear to privilege the criteria of "simplicity and brevity" and aim at providing enterprises with examples of "standardized" evaluation practices, based on lists of risk factors to which are linked procedures for measuring the level of probability of the damage and its dimensions.

However, if the organization is understood as "action that organizes", the analysis of the work situation should be interpreted as an investigation based on objective criteria and realized at different levels, addressed to assess, for each organizational choice, the likelihood of the risks occurrence (Maggi, 1997). This type of assessment, required by the European directive to comply with the principle of "avoiding risk" is not envisaged by ISPESL Guidelines.

Moreover, various points of the decree seem to suggest that there is a tendency to simplify, shorten and facilitate the activity of risk evaluation. Examples of this trend are: the prescription of standardized procedures for risk evaluation for enterprises with less of 10 employees, developed by institutional agencies delegated by the Ministry of Labor (Art. 6, Par. 8, Lett. f); the possibility for enterprises with up to 50 employees to adopt the same procedures; the prescription of standardized procedures for the evaluation of risks of work-related stress indicated by the Permanent Consultative Commission (Art. 6, Par. 8, Lett. m-quarter; Art. 28, Par. 1-bis); the frequent references to "best practice" and "codes of conduct" validated by the bodies delegated by the Ministry of Labor and to "guidelines" developed by both public and private bodies, and, finally, the assignment to the employer of the power to choose the criteria to draft the Risk Evaluation Document (Art. 28, Par. 2, Lett. a). Based on this specification, it can be assumed that the employer may self-certify the risks evaluation performed, certifying its validity, as well as the organizational choices (Maggi, 2011a; 2011b). Indeed, Consolidated Act envisages this hypothesis when, referring to employers with less than 10 employees, states that until the date of June 30, 2012 (deadline for the release of a standardized procedure for risk evaluation by institutional agencies) "...the same employers may self-certify the performance of risk assessment" (Art. 29, Par. 5).

The prevention of the risk of non-compliance with OHS regulations: the promotion of the organizational and management models.

Even though the laws on health and safety at work in Italy have been in force for twenty years, many companies still do not respect them. In addition to providing detailed regulations for the principles of health protection, another critical issue is related to the definition of strategies to promote compliance with these regulations.

The Italian Legislator has addressed this issue by extending the provisions of Legislative Decree no.231/2001 to the crimes of violation of OHS regulations.

Legislative Decree no. 231/2001 has introduced in Italy for the first time the organizational liability (expressed in term of administrative liability) for crimes committed by apical figures (CEO, top management, middle management and employees under their supervision) in the interest or to the advantages of the legal entity.

The decree, thus, introduces a new category of risk for the legal entity, the "risk of crime". Created in order to address corporate crimes in 2007, the decree has also included the crime of manslaughter or serious or very serious injuries committed in violation of the regulations on OHS protection, and it has established the related fines (Legislative Decree no. 231/2001 Art. 25- septies[4]).

The inclusion of this crime has raised many difficulties of interpretation regarding the applicability to the specific offense of the penalties provided by Legislative Decree 231/2001, due to nature of "negligence" related to the crimes committed in violation of OHS that differ from other crimes characterized by "intentionality"[5].

Legislative Decree no. 231/2001

Legislative Decree no. 231/2001 establishes the administrative liability of legal entities, companies and associations without legal status for the

[4] This article was added by Art. 9, Par. 1 of law no. 123 of 2007 (Reorganisation of OHS regulation) and later replaced by art. 300 of Legislative Decree no. N. 81 of 2008

[5] On this point, see the wide existing juridical literature (see e.g. Pascucci, 2012).

administrative offences resulting from crimes. According to the decree (Art. 5), the "legal entity is responsible for the crimes committed in its interest or to its advantage by individuals who are legal representatives, directors or managers of the company or of one of its organizational unit that has financial and functional independence", or "by individuals who are responsible for managing or controlling the company" (individuals in apical positions or "apicals") or "by individuals who are managed or supervised by an individual in an apical position" (individuals under the command of others or "subordinates").

The decree is highly innovative for the Italian legal culture, historically based on the general rule borrowed from Roman law *societas delinquere non potest*, since it adds, to the individual liability, a direct administrative liability for corporations and other legal entities, whether the crimes have been committed in the interest or advantage of the organization.

The decree has been introduced in order to adapt the Italian legal system to the international and European standards which have already established the responsibility of legal entities in relation to various categories of crimes as well as to address the growing phenomenon of "white collar" crimes. In recent years, in fact, the number of crimes committed by companies has exceeded those of the crimes committed by individuals (Ministerial Report to Legislative Decree no. 231/2001).

The offences that may generate administrative responsibility of legal entities are detailed by the norm. They are: crimes against the Public Administration (such as fraud, extortion, bribery, fraudulent receipt of public fund) and the larger part of the corporate crimes (accounting fraud, false corporate communications, market rigging, etc.). Later, the application of the rule has been extended to other crimes[6]. More in detail, as we previously reported, Law 123/2007 included also the crimes of manslaughter or serious or

[6] Such as crimes related to subversion and terrorism, crimes against the person, the counterfeiting, transnational crimes.

very serious injuries committed in violation of the regulations on OHS protection.

The decree establishes sanctions directly affecting the assets of companies and their capacity and possibility to stay on the market, and a series of requirements of compliance which enable, in the presence of crime, a reduction of penalties or even the exclusion of responsibility.

Art. 6, Par. 1 defines the possible conditions of liability exemption for the legal entity when the crime has been committed by the legal representative or the top management (as identified by Art. 5, Par.1, Lett. a). In order to obtain the immunity (or at least a reduction of the sanctions) the legal entity must be able to prove that:

a) it has adopted and effectively implemented, before the commission of the crime, an organizational and management model able to prevent crimes of the same type as the one realized;

b) it has established an internal supervisory board which supervises the correct functioning of the model, its observance and constant updating;

c) the employees have committed the crime by fraudulently eluding the organizational and management model;

d) there was not an omitted or insufficient control from the organism (internal supervisory board) which supervises the model.

In order to regulate white collars crime the Italian Legislator has chosen a legislative technique already adopted internationally, and in particular by the US Federal Sentencing Guidelines for Organizations[7]. This technique combines "repression of crimes" through severe penalties for organizations that "tolerate, encourage or condone" improper behavior (a traditional crime repression system) with the "prevention of crimes", through the introduction of a reward systems that drives organizations to exert more control over the correctness of the work and stimulating processes of voluntary self-regulation.

[7] Federal Sentencing Guidelines for Organizations were promulgated by the US Sentencing Commission in November 1991. The FSGO are designed to improve the ability of the US judicial system to address "white collar" crimes through an effective, fair and uniform system of sentencing

Legislative Decree 231/2001, in particular, seems to propose a new management philosophy that combines the natural goal of enterprise performance with the respect of the ethics and moral integrity (Ferrel *et al*., 1998; Palmer, Zakhem, 2001) by adopting the "stick and carrot" approach (Ethic Resource Center, 2012).

The reward offered to company is the exemption from the administrative liability, which can be recognized by the criminal court to the legal entity that proves the adoption of diligent behaviors.

But what are the "diligent" behaviors according to the Legislator?

The Legislator establishes that the legal entity is free from responsibility when it *can prove* to the criminal court the adoption and effective implementation of an "organizational and management model" fulfilling all the requirements provided by the norm, and of an internal supervisory board appropriate to the prevention of the crime of non-compliance with legal obligations (Art. 6, Par. 1). The task of the criminal courts is the evaluation of the suitability and effectiveness of the model.

Legislative Decree 231/2011 outlines the requirements that the model of organization and management must meet to be considered "suitable" to preventing the offences specified. In summary, the model must (Art. 6, Par. 2):

a) identify the activities in which offences may be committed;

b) provide specific protocols aimed at planning the formation and implementation of decisions in relation to the offenses to be prevented;

c) identify suitable management approaches of financial resources in order to prevent the commission of offenses;

d) provide information requirements towards the internal supervisory board responsible for supervising both the compliance and the effective implementation of the model;

e) introduce a disciplinary system to punish non-compliance with the measures indicated in the model.

For the concrete definition of the activities composing the organizational and management model, the decree refers to guidelines ("code of conduct")

developed by the representative associations of the legal entities (Art. 6, Par. 3). These guidelines are subject to a first level judgment by the Ministry of Justice that, in consultation with the competent Ministries, may provide, within thirty days by the reception from the association, remarks on the suitability of the models to prevent crimes.

The rationale for such delegation may be the need to identify guidelines and specific solutions for each economic sector and the presumable difficulty for the courts, in case of any judgment, to assess the suitability of the organizational models adopted by each institution in relation to the general provisions established by Legislative Decree 231/2001.

The organizational and management model

Consistently with the statement of Legislative Decree 231/2001, the Consolidated Act on OHS protection adopts the "stick and carrots" approach with regards the offenses committed in violation of OHS regulations by providing in Art. 30 a disclaimer of entity liability.

In Art.30, Consolidated Act specifies the characteristics that the organizational and management model must have to enable the responsibility exclusion (or at least a reduction of penalties) when a crime of manslaughter or an accidental injury committed in violation of provisions concerning occupational safety occur.

From Art. 30, Par. 1 it is possible to deduce that "The organizational and management model suitable for the exclusion of the administrative responsibility have to be adopted and effectively implemented ensuring a management system able to fulfill all legal obligations" collected in Consolidated Act including "the obligation to risk evaluation and the development of measures of prevention and protection" (Art. 30, Par. 1, Lett. b).

Furthermore, according to Art. 30, Par. 2-4, the organizational model, must provide: "suitable recording systems" of the obligations, "an articulation of the functions that will ensure the technical skills and the necessary authority for the verification, assessment, management and risk control", "a disciplinary system

to punish non-compliance with the measures indicated in the model", "a system of monitoring the implementation of the model", and "a system for the model review".

Unlike of Legislative Decree 231/2001, the Consolidated Act refers to specific models leading scholars to speak of "typed or tabulated" models (Tullini, 2010).

Actually the Art. 30, Par. 5 states that "…the organizational models compliant with the guidelines for a *management system of health and safety at work* (SGSL), drawn up in September 2001 by the National Standards Body - UNI and the National Institution for Accidents at Work Insurances – INAIL, or with the British Standard OHSAS 18001:2007 are presumed compliant with the requirements detailed in the article, for the corresponding parts".

UNI-INAIL Guidelines provide guidance to companies wishing to voluntarily adopt a system of safety management ("Introduction", p. 5), designed with the most appropriate cost/benefit ratio ("Purposes", p. 7). The principle that guided the development of the guidelines is to ensure the integration of the "OHS goals and policies within the process of design and management of the systems of work and of production of goods and services".

The necessary condition to enable this integration is that the SGSL is developed consistently with the logics underlying the systems for general business management. The choice adopted by the drafters of the guidelines was then to adopt the well-known Deming Cycle, which is at the basis of international standards and guidelines on OHS (OHSAS 18001:2007; ILO/HSO Guidelines 2001) and which has been adopted for the first time in the formulation of ISO 9001.

As anticipated, the SGSL operates on the basis of a cyclic sequence of activities related to the process "plan, do, check, and act":

a) The first phase (*Plan*) is aimed at defining a plan, an organizational structure and the necessary resources for implementing the OHS policy. The planning process involves, for each general goal/commitment, the definition of implementation plans that address: specific goals, responsibilities, actions,

indicators, budgets. The organizational structure involves the definition and the internal communication of the schema of responsibilities regarding health and safety and include, in addition to the mandatory roles prescribed by the law (Head of the Prevention and Protection Service, Representative of the Employees for the Safety, Competent physician), the planning of the tasks of inspection, evaluation and monitoring and the formalization of the jobs assigned to managers, supervisors and workers and of relative responsibilities (Guidelines, Part II, Section E2).

b) The second phase (*Do*) is to implement the planning and organizational structures defined in the previous phase, by means of an integrated and regulated management of business processes. This is a phase that, according to the drafters, can be considered as the heart of the SGSL since it allows the *integration* of health and safety protection into business processes, and it must be implemented "by avoiding duplications and waste of resources" and consists in the identification of "formalized procedures and practices" to manage programs. The procedures should cover all the aspects regulated by the SGSL, including the processes mapping.

c) The third phase (*Check*) is to monitor the programmed OHS goals and the technical, organizational and procedural provisions for protection implemented, as well as the SGSL. Specific instructions about the frequency of the controls, the procedures and the responsibilities of periodic controls and the procedures for the reporting of non compliance should be established.

d) The fourth phase (*Act*) is to review the activities of the SGSL in order to assess whether the system is properly implemented and remains appropriate for the achievement of the objectives and the safety policy established by the firm or if interventions are required. Also, this phase requires the formalization of specific procedures for the implementation of corrective actions.

In summary, the SGSL defined in the UNI-INAIL Guidelines consists of the definition of: a policy and a security plan (with detailed objectives to be assigned to each work process), an organizational structures for security (with the explanation of the schema of the security responsibilities and the workers'

assignment to specific tasks related to security, in addition to their own work tasks), several procedures and detailed instructions to manage both the compliance with OHS regulations and the SGSL implementation.

The company that wants to comply with the organizational and management model established by Legislative Decree no.231/2001 must integrate the provisions of the guidelines with two more elements envisaged by Legislative Decree no. 231/2001: the independent supervisory board and the disciplinary system to punish non-compliance with the model.

The system's objective is twofold. First, it aims to ensure that risk assessment is conducted for every work process, and to enable the implementation of measures of prevention and protection (also by means of a system of penalties for non-compliance) in order to promote actions that improve health protection by controlling the results achieved and by planning new projects. Second, the system tries to promote interventions aimed at improving health protection by analyzing the results achieved and by planning new actions.

Within these models a great importance is given to the definition and communication of procedures and to the formalization of tasks and responsibilities. Guidelines include procedures for mapping the work processes (where the risks detection is realized); procedures for risks detection (according to the instructions provided by ISPESL and other institutional bodies); procedures to ensure the involvement of staff in the achievement of the OHS goals, procedures for the training of the competences needed to perform the tasks related to safety; procedures to ensure a constant and adequate level of information and communication of policies; procedures for recording the activities; procedures for monitoring and reporting instances of non-compliance with the model, and, finally, procedures for the implementation of corrective actions.

These aspects explain why scholars argue that the latest legislative policies imply a strong proceduralization of the activities of risks prevention (Tullini,

2010) and confirm the tendency to conceive the preventive intervention according to the logic of the risk management model.

Discussion

This paper investigated which approach to workers' health and safety risk prevention is promoted by the recent Italian legislation, through the analysis and the interpretation of the rules and the application of the guidelines accompanying them.

Consolidated Act on protection of health and safety at work and the legislation on the prevention of risk of crime, including the crimes committed in violation of provisions concerning occupational safety, represent important examples of efforts by legislators to deal with critical issues for Italy such as accidents at work.

The introduction of Consolidated Act in the Italian legislation has been accompanied by an extensive debate among scholars and institutional bodies designated to provide instructions for the implementation of the regulations. Few, however, have examined in depth the problem of the effectiveness of the norms.

This contribution has investigated OHS regulations from an organizational perspective, focusing on organizational choices induced by the norms. Our investigation highlighted some relevant issues to be addressed. In the following, we discuss these critical issues.

Reduce/mitigate or eliminate the risk?

The analysis of the Italian legislative framework of OHS prevention has shown that both Consolidated Act and the guidelines promote a preventive approach based on the method of risk assessment and risk management, i.e. an evident mainstream approach (Turner, Gray, 2009). In general terms, we may define risk management as "the process of reducing the risks to a level deemed tolerable by society and to assure control, monitoring, and public communication" (Renn, 1998: 51). Risk management strategies originate from

the risk present and allowed in the work situation; in other words, they accept the risk, they take it for granted and try to prevent it by limiting and controlling the identified initiating causes (we can call this strategy as "secondary prevention") or to mitigate the impact of harms through protection measures ("tertiary prevention"). Hence, the approaches promoted by Italian legislation exclude the idea of a primary prevention aimed at protecting safety by eliminating the possibility of an accident rather than trying to reduce the probability of its occurrence (Maggi, 2011a; Perrow, 2007).

Primary prevention proactively pursues safety as overall well-being and not merely the absence of disease. Primary prevention means trying to prevent risks to health of workers through a definition of a work situation pursuing the elimination of risks: this implies that preventive action becomes endogenous in the process of organizational design (Maggi, 1997). In order to pursue an effective primary prevention, we must recognize the organizational dimension of risk, namely the fact that it originates from organizational choices. As Rulli (2011b) stated, this implies to consider work as a process of decisions and actions oriented towards objectives, and the well-being as one of the objectives of this process that is not a priori influenced by economic, production and technical reasons. In other words, the technical and economic resources should not be considered as "given", with no alternative, but as an option. In this perspective both the well-being and the prevention are "perfectible processes" and integrated into work processes. In other words, they are not "states" to be maintained but changeable and improvable process depending on the individual and collective aspirations. From this point of view, primary prevention should be considered as a preliminary, fundamental process to be continuously performed and refined; it should also be integrated and coordinated with risk management and mitigation strategies (Barbini, 2008; Rulli, 2011a; Etienne, 2011).

Who is interested in the evaluation of the actual effectiveness of the OHS risk management solutions promoted by the regulations?

Despite the high investments in rule enforcements and in risk assessment and management techniques, the number and the magnitude of accidents in the workplace remain a critical issue.

As Fabbri (2011) argues, the explanation of these data may be twofold. First, there is a problem of lack of enforcement of OHS laws. The report drawn up by the Ministry of Labor and Social Policy on monitoring activities carried out in Italy in 2011 by the National Labor Inspection shows that 23% of controlled companies violated OHS regulations. The violation of OHS rules has certainly inspired the legislator to tighten the sanctions against employers included in the Consolidated Act (Decree 81/2009). The second explanation may relate to a problem of method: it can be assumed that the promoted methods of risk prevention and management are inadequate with respect to the objectives of OHS protection.

The literature on this issue is recent and contributions are still few. These contributions converge on the need to revise the mainstream approach to occupational risk prevention. In the field of risk analysis and assessment, some recent contributions have highlighted that the frequent accidents within companies and the increased rate of severity call for a revision of the traditional methods of risk assessment applied for twenty years and the application of "new kind of safety management" (Knegtering, Pasmanb, 1999). Other contributions focus on changes in working conditions and their negative effects on the health and safety of workers (Koukoulaki, 2010; Hovden *et al.*, 2010). More in detail, the intensification of the pace of work, caused by the spread of post-Fordist work practices, would bring about an increase in muscoloskeletal diseases and serious damage to the mental health of workers (see the wave of suicides among employees of French companies in 2008) (Etienne, 2011). Furthermore, the precarious labour conditions, the growth of illegal or undeclared employment and the presence of subcontractors in the workplace appear to have a relatively strong association with high accident rates. These

new trends in a changing work environment require to invest in research, also by the European Union, in order to design new and more effective safety preventive strategies. The prevention measures based on acceptable limits of exposure to hazardous chemical or physical factors (founded on the epidemiological experience of workers who were exposed during normal 8h/day work shifts) represent an example of the inadequacy of current methods of risk assessment for the protection of workers in the current conditions of both working hours' deregulation (new and variable work schedules and shifts) and workers mobility between workplaces and tasks, which entails exposure to different hazards each time (Papadopoulos *et al*., 2010)

Issues such as the appropriateness' evaluation of the risk assessment methods and the effectiveness of the preventive measures represent a challenge for both jurists and policy makers. Unfortunately, even in the legal debate the issue of the removal of the primary prevention in OHS regulations is not addressed, as well as the evaluation of the effectiveness of the risk assessment methods provided in the guidelines produced by the designated bodies.

Moreover it seems that policy makers are actually pursuing the compliance with the procedures rather than to the actual evaluation of strategies and practices to protect safety in the workplace.

We believe that the importance of the issue encourages further research on the topic.

Encouraging self-regulation to make the company more responsible or proceduralizing the prevention of risks to reduce the cost of security?

As highlighted before, a relevant problem in the Italian society is the non compliance by companies with respect to the OHS rules.

With respect to the declining emphasis that is being placed on the state's regulatory capacity to deal with increasingly complex social issues such as OHS, the Italian Legislator established, following an international trend, to replace the traditional command and control approach with a different one that

fosters the internal self-regulation of companies in order to make them more responsive to OHS concerns.

In fact, Legislative Decree no. 231/2001 encourages companies to voluntarily introduce management systems to prevent and control the risks of crime as a way to obtain the liability exemption or, at least, a reduction of the sanctions in case of offences committed by its manager or employees (the "stick and carrot" approach). Moreover this is a widespread opinion in the international literature that considers the management systems as the ideal management tool in order to achieve "with acceptable costs, the objectives of health protection of workers while respecting the need for flexibility of enterprise" and, consequently, to partially solve the conflict between business priorities, legal obligations, and OHS management concerns (Gunnigham, 1999).

By adopting this legislative technique, the Italian Legislator seems to look favorably to the management tools used in the business practices, recognizing their ability to achieve the prevention of the crime on non-compliance with the OHS norms. The logic underlying the regulation of white collar crimes, applied to the OHS domain, is that in case of an accident the employer liability for manslaughter or a serious injury automatically moves also to the company that is characterized by an "organizational and management inadequacy". This is the so-called "guilt of organization" due to the failure to adopt measures that have caused, as unwanted result, death and injuries.

This subject is relevant: first, because we are facing a change of approach in the legislative policy on OHS which changes from a "command and control" style to a "stick and carrots" style; furthermore because the Legislator relies on the consequences of the use of these instruments in order to mitigate or exclude the legal culpability of company for crimes committed by their employees.

It is therefore appropriate to reflect on the content of these instruments, the implications of their adoption while focusing also on the interpretative problems raised in the field of jurisprudence.

A first issue concerns the definition of requirements that should meet the

"organizational and managerial model" to be recognized as "suitable" to exempt the liability of the legal entity. Legislative Decree 231/2001 details the requirements, delegates the definition of codes of conduct to representative associations and requires the validation of the codes of conduct by the Ministry. The Legislator of Consolidated Act introduces (Art. 30, Par. 5) the reference to two specific systems drafted respectively by a public body (UNI-INAIL) and a private one (British Standard) that are recommended by the Legislator in the first phase of the norm implementation. Furthermore, the Legislator states that the Advisory Committee will be able to further define more "organizational models" (Art. 30), avoiding the institutional mediation provided for in Decree 231/2001. Some scholars argue that this approach of Legislator that "gives free reign" to commissions and private bodies could suggest a possible judicial interpretation which leads to depriving the criminal court of the control of the models "suitability", replacing it with a "ex-ante validation, recognized ex lege, supporting specific management models" provided by internal self-regulatory bodies or third parties (e.g. private bodies or certification agencies) (Tullini, 2010).

A more relevant issue unveiled by the interpretation of the norm is the evaluation of the effectiveness of the managerial choices proposed to prevent the risk of non-compliance with legal obligations. This is a critical topic particularly for the criminal court which has to assess not only the suitability of the model but also its adoption and effective implementation. This assessment, according to Tullini, overcomes the usual field of investigation of jurists since it requires multidisciplinary knowledge and especially it can not be object of abstraction or ex ante generalization since concerns the check of the effective functioning of models in relation to the individual and specific business context (Tullini, 2010: 409).

This issue is characterized by many difficulties of interpretation. Until now, the jurisprudence is very limited and does not provide support for a more reasoned reflection. When a manslaughter or a serious injury occurs in a company without an organizational and management model (see e.g.

Thyssenkrupp) the ascription of administrative offense to the company can be easily recognized. However the court may encounter more complex problems of interpretation when the accident at work happens in companies where the organizational and management model has been adopted and implemented. In this case, the court has to assess the effectiveness of that model to prevent violation of OHS regulations.

With specific reference to this aspect, the use of the term "model" by the Legislator has produced among jurists and scholars misleading expectations about the definition of what is a "good organizational model" or "a good organization". They refer to organizational and managerial solutions that would ensure the achievement of desired goals (health protection).

On the other hand the use of the term "model" has also opened the possibility to glimpse into this legislative technique an opportunity for the entrepreneur to predict the "security costs": once invested the amount of resources necessary to certify the compliance with the norms, the management becomes free from any further obligation of prevention and, mostly, any unexpected sanctions (Salento, 2011).

Some jurists stand out against this possible interpretation. Even though the usefulness of management tools may be acknowledged, especially if they are validated by public bodies, it must be emphasized that these tools can not affect the principle of responsibility of the employer in respect of the OHS protection established by Community law and accepted by the Italian one (Tullini, 2010; Pascucci, 2011).

The counterintuitive effects of proceduralization

The Italian Legislator specifying the characteristics of the "organizational and management model" has included a reference to the management system and control, delegating to the governmental agencies and industry associations the production of detailed information on the characteristics and methods of implementation.

The Guidelines developed by UNI-INAIL as support in the introduction of

a management system for health and safety, promote a method to identify precise areas of authority and responsibility for health and safety and generate detailed procedures for the control of health risks in all aspects of business.

The tendency of these systems to "proceduralize" the activities of workers is one of the limits that may undermine the potential benefits derived from the systems, according to the same literature that emphasizes their adoption. In particular, this literature warns against the danger of work disempowerment limiting the flexibility that is essential to businesses today. The counterintuitive result of this approach is that the control of employee behavior could prevail on the control of hazard in the workplace (Gunningham, 1999).

This risk is well known by small enterprises. They are reluctant to apply such systems because of their excessive burden related to the costs of implementation and the "proceduralization" of activities.

When comparing costs / benefits, SMEs often prefer not to adopt the organizational model since they consider cheaper to run the risk of administrative sanctions rather than to bear the costs of a system which is inconsistent with their own management needs.

Will the reconciliation of risk management and business practices improve safety at work?

In general, one of the major and more appreciated benefits deriving from the approach to risk prevention adopted by Italian and international regulations is the integration of the occupational risk management decisions within the framework of general business decisions. In fact, while in the past managers acted to pursue their economic goals (and only in a later moment they analyzed and managed the risks induced by their business decisions), now they should act and decide taking into consideration, at the same time (and at the same level of importance) both the economic and safety goals.

Regulations have recognized how organizational and safety decisions are intermingled. These premises, however, are operationalized by adopting a positivist approach based on: the detection of the actual risks; the possibility to

identify, assess and evaluate risks and their potential effects; the possibility to control and limit risks from resulting in accidents; the opportunity to develop formal procedures for regulating the process of risk identification, assessment and management. Actually starting from the detection of the existing risks they implicitly assume that risks are unavoidable, but they can be identified, assessed, and managed; some best practices for managing risks do exist; it becomes necessary to formalize and apply these practices for making the risk management system effective. Hence, in their actual application, the rules of law, far from reconciling business and prevention decisions, foster approaches based on the formal compliance to practices and guidelines. However, these approaches do not effectively affect strategic and organizational decisions. Only the development of a new attitude toward primary prevention may reconcile business and occupation safety decisions, and may result in the improvement of safety at work: in this case, the reconciliation is not just a slavish application of formal standards, but consists of a continuous process of elaboration and re-elaboration of organizational and safety decisions in order to avoid, eliminate and, occasionally, manage risks.

References

BARBINI F.M.
2008 Organization in disaster: The failure of disaster-recovery plans in the aftermath of the AZF explosion, *24° EGOS Colloquium "Upsetting Organizations"*, Amsterdam.

COX T., GRIFFITHS A., RIAL-GONZALES E.
2000 *Research on Work-related Stress, A European Agency for Safety and Health at Work*, Bilbao, http://osha.europa.eu/en.

EICHENER V.
1997 Effective European problem solving: lessons from the regulation occupational safety and environmental protection, *Journal of European Public Policy*, 4, 4: 591 – 608.

ETHICS RESOURCE CENTRE
2012 *The Federal Sentencing Guidelines for Organizations at twenty years*, Available at: www.ethics.org

ETIENNE P.
2011 Prevention in the workplace in France, in Maggi B., Rulli G. (Eds.), *Prevention at work and stress evaluation in France and in Italy / La prévention sur les lieux de travail et l'évaluation du stress en France et en Italie / Prevenzione nei luoghi di lavoro e valutazione dello stress in Francia e in Italia*, http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.

FABBRI T.M.
2011 Prevenzione e sicurezza sul lavoro: un problema di metodo, in Maggi B., Rulli G. (Eds.), *Decreto Legislativo 81/2008. Quale prevenzione nei luoghi di lavoro?*, http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.

FERRELL O.C., LECLAIR D.T., FERRELL L.
1998 The Federal Sentencing Guidelines for Organizations: A Framework for Ethical Compliance, *Journal of Business Ethics,* 17: 353-363

GEPHART R. P., VAN MAANEN J., OBERLECHNER T.
2009 Organizations and risk in Late Modernity, *Organization Studies*, 30, 2-3: 5-20.

GUNNIGHAM N.
1999 Integrating Management Systems and Occupational Health and Safety Regulation, *Journal of Law and Society*, 26, 2: 192–214.

HAIMES Y.Y.
2009 *Risk modeling, assessment, and management*, Hoboken: John Wiley & Sons Inc. publication, 3rd edition.

HØJ N.P., KRÖGER W.
2002 Risk analyses of transportation on road and railway from a European Perspective, *Safety Science*, 40, 1-4: 337-357.

HOVDEN J., ALBRECHTSEN E., HERRERA I.A.
2010 Is there a need for new theories, models and approaches to occupational accident prevention?, *Safety Science*, 48: 950-956.

KNEGTERING B., PASMANB H.J.
2009 Safety of the process industries in the 21st century: A changing need. *Journal of Loss Prevention in the Process Industries of process safety management for a changing industry*, 22: 162-168.

KOUKOULAKI T.
2010 New trends in work environment - New effects on safety, *Safety Science,* 48: 936-942.

MAGGI B.
1984/1990 *Razionalità e benessere. Studio interdisciplinare dell'organizzazione*, Milano: Etas Libri.
1997 Analisi e progettazione del lavoro per la tutela della salute. L'orientamento innovativo del D.Lgs. 626/94, in Montuschi L. (Ed.), *Ambiente, salute e sicurezza. Per una gestione integrata dei rischi di lavoro*: 323-350, Torino: Giappichelli.
2003 *De l'agir organisationnel. Un point de vue sur le travail, le bien-être, l'apprentissage*, Toulouse: Octarès Editions.
2006 L'analisi del lavoro a fini di prevenzione, *Quaderni di Diritto del Lavoro e delle Relazioni Industriali,* 29: 13-27.
2011a Prevention at work in Italy, in Maggi B., Rulli G. (Eds.), *Prevention at work and stress evaluation in France and in Italy/ La prévention sur les lieux de travail et l'évaluation du stress en France et en Italie/ Prevenzione nei luoghi di lavoro e valutazione dello stress in Francia e in Italia,* http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.
2011b Introduzione, in Maggi B., Rulli G. (Eds.), *Decreto Legislativo 81/2008. Quale prevenzione nei luoghi di lavoro?,* http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.

MAGGI B., MARCHIORI M., RULLI G.
2011 Introduction, in Maggi B., Rulli G. (Eds.), *Prevention at work and stress evaluation in France and in Italy/ La prévention sur les lieux de travail et l'évaluation du stress en France et en Italie/ Prevenzione nei luoghi di lavoro e valutazione dello stress in Francia e in Italia*, http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.

MAGGI B., RULLI G., PASCUCCI P., MARCHIORI M., SALENTO A.
2011 Tavola Rotonda. Salute e sicurezza nei luoghi di lavoro, *Sociologia del diritto*, 38, 3: 167-202.

MARHAVILAS P.K., KOULOURIOTIS D.E., GEMENI V.
2011 Risk Analysis and Assessment Methodologies in the Work Sites: On a Review, Classification and Comparative Study of the Scientific Literature of the Period 2000-2009, *Journal of Loss Prevention in the Process Industries*, Elsevier, 24, 5: 477-523.

PALMER D.E., ZAKHEM A.
2001 Bridging the Gap Between Theory and Practice: Using the 1991 Federal Sentencing Guidelines as a Paradigm for Ethics Training, *Journal of Business Ethics,* 29: 77–84.

PAPADOPOULOS G., GEORIADOU P., PAPAZOGLOU C., MICHALIOU K.
2010 Occupational and public health and safety in a changing work environment: An integrated approach for risk assessment and prevention, *Safety Science*, 48: 943-949.

PASCUCCI P.
2011 La prevenzione primaria nel decreto legislativo 81/2008, tra ombre e luci, in Maggi B., Rulli G. (Eds.), *Decreto Legislativo 81/2008. Quale prevenzione nei luoghi di lavoro?,* http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.
2012 L'individuazione delle posizioni di garanzia nelle società di capitali dopo la sentenza ThyssenKrupp: dialoghi con la giurisprudenza, *I Working papers di Olympus, n.10,* http://ojs.uniurb.it/index.php/WP-olympus/article/view/27.

PERROW C.B.
2007 *The next catastrophe, reducing our vulnerabilities to natural, industrial, and terrorist disasters,* Princeton: Princeton University Press.

RENN O.
1998 Three decades of risk research: accomplishments and new challenges. *Journal of Risk Research*, 1, 1: 49-71.

RULLI G.
1996 La formazione per la prevenzione e il D.Lgs. 625/94. Un'esperienza nel settore dei servizi, in *Formazione per la prevenzione, metodo delle congruenze organizzative e D.Lgs. 626/94, Quaderno del Programma Interdisciplinare di Ricerca Organization and Well-being*: 36-41, Torino: Tirrenia Stampatori.
2011a Stress at work: risk evaluation and prevention, in Maggi B., Rulli G. (Eds.), *Prevention at work and stress evaluation in France and in Italy/ La prévention sur les lieux de travail et l'évaluation du stress en France et en Italie/ Prevenzione nei luoghi di lavoro e valutazione dello stress in Francia e in Italia*, http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.
2011b Quale salute e quale prevenzione nei luoghi di lavoro? Un punto di vista biomedico, in Maggi B., Rulli G. (Eds.), *Decreto Legislativo 81/2008. Quale prevenzione nei luoghi di lavoro?*, http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.

SALENTO A.,
2011 Work safety and the dogma of entrepreneural monopoly on organization, in Maggi B., Rulli G. (Eds.), *Prevention at work and stress evaluation in France and in Italy / La prévention sur les lieux de travail et l'évaluation du stress en France et en Italie / Prevenzione nei luoghi di lavoro e valutazione dello stress in Francia e in Italia?,* http://amsacta.cib.unibo.it, Bologna: TAO Digital Library.

SCHEYTT T., SOIN K., SAHLIN-ANDERSSON K., POWER M.
2006 Special Research Symposium: Organizations and the Management of Risk, *Journal of Management Studies,* 43, 6: 1331-1337.

SMITH D., TOMBS S.
1995 Beyond self-regulation: towards a critique of self-regulation as a control strategy for hazardous activities, *Journal of Management Studies*, 32: 619–36.

TULLINI P.
2010 I sistemi di gestione della prevenzione e della sicurezza sul lavoro, *Giornale di diritto del lavoro e delle relazioni industriali,* 127, 3: 403- 413.

TURNER N., GRAY C.
2009 Socially constructing safety, *Human Relations* 62, 9: 1259-1266.

WALTERS D.R.
1996 Health and safety strategies in Europe, *Journal of Loss Prevention in the Process Industries*, 9, 5: 297-308.