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Moral and legal attributions of responsibility for fatal road traffic offenses: legal reasoning and commonsense thinking

Rauschenbach Mina

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FACULTÉ DES SCIENCES SOCIALES ET POLITIQUES

**Moral and legal attributions of responsibility for fatal
road traffic offenses:
Legal reasoning and commonsense thinking**

THÈSE DE DOCTORAT

présentée à la

Faculté de Sciences Sociales et Politiques

de l'Université de Lausanne

pour l'obtention du grade de

Docteur ès Sciences sociales

Par

Mina Rauschenbach

Directeur de thèse

Prof. Dario Spini

Lausanne

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IMPRIMATUR

Le Conseil de la Faculté des sciences sociales et politiques de l'Université de Lausanne, sur proposition d'un jury formé des professeurs

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autorise, sans se prononcer sur les opinions de la candidate, l'impression de la thèse de Mme Mina RAUSCHENBACH, intitulée :

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Lausanne, le 28 février 2011

Le Doyen de la Faculté

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I. Introduction

A search for responsibility is unleashed, when a potentially fatal or serious event happens, such as a car crash or an explosion due to gas. Political actors, in need of public support, often choose to exploit such issues, because they can affect most citizens in their everyday life. The question of “who is responsible” and the need to denounce publicly bad and harmful actions often dominate political and media discourse. Moreover, when confronted with a trial, the public and, in particular, the victims concerned by the incriminated act often find that the sentence imposed to perpetrators is not harsh enough, and more specifically, not commensurate with the consequences of their acts. People find themselves frustrated in their search for accountability in cases where legal responsibility and culpability is tenuous to determine, difficult to prove or simply very low. A rift may thus exist between what the legal system can actually do to regulate and sanction behaviours and society’s expectations concerning its role. This research aims, thus, at understanding better how responsibility is represented and perceived in commonsense reasoning, when judging a person’s harmful actions.

Given the fact that this research concerns the legal system and ordinary reasoning about criminal responsibility, a criminological and a social psychological analysis is warranted in order to explore these issues. The interdisciplinary approach used in this research allows us to examine ordinary judgments about criminal responsibility against the backdrop of the legal regulation processes that organize the social context in which these judgments are made. The contextualization of such responsibility ascriptions is essential in order to understand the social underpinnings of ordinary perceptions of legal violations. The theoretical introduction will focus on three main issues.

First, the legal and criminological issues surrounding criminal responsibility and punishment that are important to understand the evolution and the status of criminal law and penal sentencing in Europe, and in Switzerland, in particular, will be described in the two first sections. *Section 1* will consider how societal heightened concern for risk, as well as for crime, has shaped criminal policies and law in the past decades. A particular attention will be afforded to policymakers’ stance towards the increased

“responsibilization” of individuals and the punitive control of deviant behaviours, as well as the political and media exploitation of victimhood and emotion. In *section 2*, a thorough examination of the evolution of penal legislation and criminal policies in Switzerland will be carried out in order to demonstrate the current trend towards increased punitivity.

Second, we will review the findings of studies that focused on gaining a better understanding of the manner in which people in everyday life think, perceive, and understand the criminal justice system and the law in the two following chapters. The issue of public attitudes towards punishment and the criminal justice system, in terms of a general research overview, as well as findings that are more specific to the Swiss population, will be tackled in *section 3*. Research related to commonsense notions of law and responsibility, as well as to the role of social representations in ordinary reasoning about responsibility will be described in *section 4*.

Thirdly, this analysis will be followed by a detailed review in *section 5* of relevant social psychological research on attribution of responsibility and blame, as well as related factors, such as normative, attitudinal and emotional determinants of these attributions. A detailed examination of research concerning the attribution of responsibility, intention and blame, and the relationships highlighted between these evaluations will be carried out. The existence of a moral and a legal dimension to responsibility and the relevant research supporting the assumption of a bi-dimensional model to responsibility will then be discussed. Finally, the role of attitudinal, normative and emotional factors in relation to responsibility attributions will be considered. More specifically, we will examine previous research findings on responsibility evaluations concerning the role of attitudinal factors related to punishment and locus of control, normative factors related to social norms and expectations, as well as negative emotions.

1. Socio-political determinants of criminal policies and legislation in Europe and in Switzerland

The study of an issue such as the attribution of criminal responsibility for fatal road traffic offenses, when taking into account the legal and the psychological perspective, can only be apprehended through the lens of an analysis of the society in which the law and the criminal justice system evolve in today's world. This analysis also involves an understanding of the socio-economic and historical factors underlying the post-WWII development of criminal law and policies in western societies, and particularly, in Europe and Switzerland¹.

Post WWII western societies were characterised by the development of a social welfare perspective in social policies evolving in parallel with a liberal conception of the criminal law which emphasized personal freedom and individual responsibility and which was particularly dominant in the United Kingdom (Norrie, 2009). After WWII, most European societies had to deal with major economic and social instability. Moreover, crime rates in most European countries rose from the 60s until the mid-90s. These increases in crime were most probably due to a post-war phenomenon of legitimization of violence (Archer & Gartner, 1984), From the mid-90s, depending on the countries, crime rates stabilized, fluctuated or fell (Aebi et al., 2006 ; van Dijk, Manchin, van Kesteren & Gegerly, 2007). Crime control became an increasingly debated issue in political discourse and became a subject of worry and anxiety, but also fascination for the public.

¹ The development of criminal law and policy in the United States will not be considered here, since it involves very distinct and characteristic patterns that cannot be generalized to evolution of criminal policy and penal systems in European countries (for more information on these differences, see Tonry, 2007). Switzerland, even though it is not a member of the European Union, is considered here as a European country in the geographical and socio-political sense.

1.1. Context of heightened concern for risk: individual responsabilization and punitive control for harmful acts

Western societies have seen major economic, social and cultural changes after WWII which affected such domains of life as consumerism patterns, familial structures and ties, religious practices, a reorganisation of time and space linked to the use of cars and road infrastructures, as well as the development of the media and general societal values (Garland, 2007). These changes bear witness to the advent of late modernity. Such late modern societies are also characterised by a focus on risk and its control (Hudson, 2003), whereby heightened concerns for risk are a distinguishing feature. Such social contexts, also known as “risk societies” (Beck, 1992), tend to favour security over liberty. This preoccupation for risk is generalised and widespread throughout all domains of contemporary society and thinking. Modernity and related technological or scientific evolutions are, in this context, considered more as involving risks than as a source of benefits and opportunities. According to this perspective, such risk-oriented way of reasoning is an integral and routine part of our thinking and social regulation processes (Rose, 2000).

This orientation has several consequences according to social theorists such as Beck (1992) and Giddens (1990). Expectations concerning the mastery of the social and natural environment, which are typical of our modern societies, involve the need for all risk to be defined and controlled. The realisation that these expectations can never be totally satisfied results in a growing distrust for expert knowledge. This mistrust concerns of course also the criminal justice system and its “experts” and results in perceptions of leniency in sentencing practices, of miscarriages of justice, of the inefficiency to control and deter crime, as well as low confidence in the administration of justice. This lack of trust is also apparent in social interactions. Modern societies are indeed characterised by growing individualism, as well as the loss of traditional values and the loosening of social bonds, which create the ideal breeding ground for people to feel threatened by each other.

The emphasis on risk and safety has also had consequences on criminal justice theory and policy. This influence is embedded in the emergence of a “new penology” (Feeley &

Simon, 1994), where offenders are more identified according to the degree of risk they pose to society and less as individuals whose criminal and culpable behaviours troubled the social order. This “new penology” implies the use of actuarial-based penal techniques, such as statistically-based risk assessment methods, or risk avoidance measures, such as closed circuit television. Governance is focused on provision of security or risk management: citizens accept to trade-off some of their freedom in return for a greater level of security provided by the government (Foucault, 1991). This phenomena, although less prevalent in European countries (except for the United Kingdom), than in the US, have an increasing influence on crime control policies throughout the western world. Actuarial judgments are used in courts to determine the likelihood of an offender to reoffend and the danger he/she poses to society, which in turn have an influence of the sentencing type and quantum (Gendreau, Little & Goggin, 1996). Thus, the evaluation concerns whether the offender possesses or not the characteristics associated with reoffending, that is, the risk factors, whether social or personal, that increase the probability of recidivism (Hannah-Moffat, 1999). However, as Hudson (2003) warns: “with the new, actuarial justice, the “truth” of an assessment lies in correctly identifying the factors, not whether an individual really would or would not reoffend”. The increasing focus on risk control might erode principles that are essential for penal systems such as due process and proportionality.

Let us add that this new concern for risk has also consequences for the attribution of responsibility and blame. As Douglas (1992) suggests, risks can be attributed to different sources depending on the society and individualistic cultures could be more likely to attribute these risks to the members of the “weak” categories (the poor, the foreigners, the deviants). Members of marginalized categories, acting as scape-goats chosen by society to symbolize their fears, are pinpointed as representing the source of all evil that has to be eradicated to live in a secure world (Dollard et al., 1974; Robert, 1986). Thus, western societies tend to blame the criminal, but not social and structural factors, such as social inequalities or unemployment as causes of crime. This also has an incidence on the way in which the criminal justice system attributes blame for risks: risks of all kinds will be primarily related to the wrongdoing of individuals and not to providence or ignorance of rules. The search for responsibility and its unequivocal focus on individuals has become a

central aim in our society and in the legal system (Giddens, 1999; Lacey, 2001). Probabilistic and moral perspectives of crime control are thus now combined in the “blaming the individual” discourse concerning risk. However, this individualisation of responsibility for harm is coupled with a focus on making the collective accountable for risk management (Hier, 2008). This is, for example, the case when authorities initiate campaigns promoting preventative measures each citizen must take to avoid a burglary or reminding parents to keep their children under supervision.

Proponents of the risk-society thesis suggest also that this blame-orientation results also in punitive populism (Bottoms, 1995; Garland, 2000). They argue that politicians and the public in such risk-control cultures are likely to express the need for unrealistic levels of safety, which could lead to an increasing repression and criminalisation of those behaviours that are pinpointed as posing a risk for the society. Politicians are also often accused of using the sensationalistic media to stimulate public acceptance of such harsh policies, by highlighting the many risks that can plague their everyday life and by exploiting the suffering of the victims who have encountered such dangers. These media representations have of course the intended effect of giving a distorted and disproportionate perspective of these risks and will thus contribute to the creation of unfounded anxieties and support for a harsher stance in crime policy in the population. Let us however bring a nuance to the risk-society thesis and its relationship to punitive populism, in particular. Although this relationship is clearly applicable to the English context, it may less be the case for other countries in Europe and Switzerland, in particular (Tonry, 1999, 2007).

Still, one cannot deny that current criminal policies are guided by an actuarial logic of prevention of the risk of criminal actions (Languin, Kellerhals & Robert, 2006; Zedner, 2009). Punishment, which aimed mostly at “normalizing the deviant individual”, is now, considered primarily as a means to promote and maintain security (Garland, 2007). This “punitive fervour” has led to the multiplication of criminal laws in many European countries and harsher sentences for certain deviant acts (Muchielli, 2008). There is no doubt that our post-modern societies are characterized by an increasing “disciplinarization” and criminalization (Bauman, 1992; Muchielli, 2010; Wagner, 1993).

Moreover, a trend towards increased accountability seems to legitimize this emphasis on punitiveness as a morally proper response to individual criminal acts (Norrie, 2009). Thus, one can notice the emergence of new forms of regulation in Europe, such as those pertaining to anti-social behaviour (Ramsay, 2004), corporal punishment (Sebba, 2009) or driving offenses (Cunningham, 2008). Behaviours that amount to incivilities, such as begging or loitering, are now the object of a greater social control that takes on various forms such as surveillance, repression or exclusion (Lianos, 2000). Our society has become intolerant: any form of violence and behaviours that were once tolerated, even though considered as exaggerated or deviant, have now become intolerable (Mucchielli, 2010). A behaviour that was widely practiced a few decades ago, such as spanking one's child, is now considered as an act that should be prohibited by many specialists (Bitensky, 2006). Many European countries (Austria, Croatia, Cyprus, Denmark, Finland, Germany, Italy, Latvia and Sweden) have adopted policies or laws in that direction. This prohibition movement has been followed by a General Comment formulated by the Children's Rights Committee asserting an unequivocal right for children to be protected from corporal punishment². Given such normative declarations, it is reasonable to think that criminalization of such conduct will be generally applied in other countries in the near future. As for Switzerland, calls for a ban of corporal punishment are increasing in the political³ and the associative field⁴. However, many people, including specialists, are divided on the potential harmfulness on children of corporal punishment as a means to discipline (Gershoff, 2002). The boundaries between unpleasant and criminal behaviours or between crime and nuisance have thus become significantly blurred. This could be explained by Hunt's analysis (2003) of an increasing fuzziness in the limits separating morality from immorality in the past century. Everyday activities are increasingly analysed in terms of their goodness or badness, of their wrongness or rightness, or of their healthiness or unhealthy nature. Society tends to confer a moral status to certain behaviours, especially when they are found to have harmful effects, and, thus, powerfully

² Committee on the Rights of the Child to Protection from Corporal Punishment and Other Cruel or Degrading Forms of Punishment. General Comment No 8 (42nd Sess.), UN Doc CRC/C/GC/8, 15 May-2 June 2006.

³ See Motion CAJ-CN 96.3176 on the legal prohibition of corporal punishment and degrading treatment of children. Postulate CAJ-CN 96.3177 on dispositions concerning the protection of childhood in the Federal Constitution. See also the parliamentary initiative Vermont-Mangold 06.419 of March 24th 2006 to protect better children against violence.

⁴ The Swiss foundation for the protection of childhood has been campaigning against corporal punishment and has instated since 2003 a day for non-violent education (No hitting day). For more information, see www.kinderschutz.ch. Parliamentary debates on the issue of banning corporal punishment have recently also taken place in Switzerland.

change their moral significance. This process of moralization, as Rozin (1999) termed it, means that a behaviour, which was once accepted in a society, can be progressively perceived as violation of societal values. For example, in the space of a few decades, harmful addictive behaviours, such as cigarette smoking or alcoholism, that were once tolerated and considered as an action that was the product of free will, are increasingly the object of intense moral disapproval and feelings of disgust.

Finally, let us add that the idea of an increasing consideration for controlling risk is also applicable to the Swiss context, as demonstrated by the emergence of new legislations such as those pertaining to the incapacitation of dangerous offenders or the imprescriptibility of sexual acts committed on children. These issues will be the subject of a more detailed discussion further. Moreover, the political exploitation of certain risk-related issues, such as sexual abuse of children, the increasing occurrence of violent crimes or fatal road traffic offenses due to dangerous drivers, has been clearly relayed or reflected by sensationalistic and disproportionate media representations of crime and victims in Switzerland. The criminal justice system in Switzerland is also affected to a certain extent by this risk and control orientation as will be demonstrated further.

1.2. Public concern for crime: the role of emotions, victims and the media

Considerable changes have occurred in the last 30 years, in terms of the management of crime and public order, as well as in terms of contemporaneous mental representations of the criminal justice system and criminal acts (Garland, 2001). The ever-increasing attention of the media for criminality and insecurity has led, in contribution with the exploitation of these matters by political discourse, to a heightened sensitivity of the public to the risk of being a victim. Daily exposure to sensationalized representations of crime depicted by tabloids and the greater salience of the mass media in ordinary people's lives offer an inflated picture of the prevalence of crime (Pfeiffer, Windzio & Kleinmann, 2005). Moreover, in stark contrast with the rather weak attention afforded to crime at the beginning of televisual broadcasting, current representations of criminality and news briefs about local incidents have acquired a status of their own as newsworthy

issues and have become an integral part of people's everyday intake of information (Sécaïl, 2010). Crime has become a major subject of popular conversations and political debates. Images of sanctified victims and dramatic depictions of violent acts are pinpointed in political discourse using language that appeals to the emotions of the public (Garland, 2007). Crime is the object of societal fascination but also public anxiety. This can lead to a growing demand for social order and security measures, but also to a better awareness of measures to prevent the occurrence of crime and the consequences of crime in terms of victimization.

Victims have been afforded an increased role and position in the moral vindication of crime (Rauschenbach, 2009; Sebba, 2009). Indeed, in addition to an increasing exposure to information about the risk of victimisation and to the plight of victims whose suffering is politically exploited, our society is also evolving in a climate of growing compassion for victimisation and of sensitivity to emotions (Furedi, 2002; Erner, 2006). In this context of "emotionalization" of social interactions (Williams, 2001), the public's reactions of compassion to the suffering of victims can thus be used by politicians and the media to justify harsher sentences and an increased criminalisation of certain behaviours (Walklate, 2007). Stereotyped media representations of the offender and the victim, as incarnating the opposition between the Bad (cold blooded and unremorseful killer) and the Good (the innocent victim) can, in these circumstances, contribute to a positive influence of political populist punitive discourse on the public's representations of criminal policy. Let us add that the criminal justice system itself seems to have become emotionalised, since more space than ever is given to the expression of individual emotions in the legal realm and in legal processes (Karstedt, 2002). The penal system is becoming more and more responsive to collective and public emotions and this trend is also quite clearly occurring in criminal policy-making, as well as in the courts (Laster et O'Malley, 1996).

The emotion-oriented climate explains also the prominent position of victims in the criminal justice system and in legal debates (Walklate, 2007). Victims are now acknowledged by the legal system, not only as participants to the criminal justice process, but also in terms of their suffering and their expectations of moral restoration and recognition. This current rise of victims in the penal scene is observed in the evolution of

legislation, but also in terms of everyday judicial practice. Let us add that the concern for crime victim rights emerged in a time where the enforcement and advocacy of human rights and the issue of minority rights were gaining increasing importance in international politics (Elias, 1986). In the same vein, one should mention that victims' movements developed in parallel to and following the actions for increased rights carried out by various social groups such as women, workers, homosexuals or oppressed minorities. Through the actions of such oppressed groups, new victims were brought to light and new forms of violence were denounced: victims of domestic violence, workers submitted to exploitative work conditions, discriminated ethnic minorities or victims of homophobia.

Consideration for the suffering of victims is emphasized in the recommendations made by supranational European and International bodies. On the international level, one should first of all mention the 1985 UN Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power. This instrument is considered to reflect "the collective will of the international community to restore the balance between fundamental rights of suspects and offenders, and the rights and interests of victims". Among other recommendations, it states that victims "are entitled to access to the mechanisms of justice and to prompt redress, as provided for by national legislation, for the harm that they have suffered". Moreover, the 1985 recommendation of the Council of Europe advocated explicitly that "the needs of the victim should be taken into account to a greater degree, throughout all stages of the criminal justice process"⁵. The Council of Europe, in addition to the adoption of a Convention on the compensation of victims of violent crimes⁶, made other recommendations⁷ related to victim rights issues. More recently, the Council of Ministers of the European Union also agreed upon a Framework Decision on the standing of victims of crime in criminal proceedings⁸ that recommends that member States should show "particular regard to the right to be treated with respect for their dignity, the right to provide and receive information, the right to understand and

⁵ 7th consid. of the Council of Europe recommendations R(85) 11 of June 25th 1985 on "the position of the victim in the framework of criminal law and procedure

⁶ Adopted on November 24th 1983

⁷ See the Council of Europe recommendations R(87) 21 of September 17th 1987 on "assistance to victims and the prevention of victimisation", R (99) 19 concerning "mediation in penal matters" and R(2006)8 on "assistance to crime victims".

⁸ See the Council of Europe Framework Decision of 15 March 2001 on the standing of victims of crime in criminal proceedings (2001/220/JHA) OJ, L82, 22 March 2001, p 1-4

be understood, the right to be protected at the various stages of procedure “⁹. It also recommends that its provisions do not only aim at the protection of the interests of victims in the criminal justice process *stricto sensu*, but that they also involve the development of necessary measures to assist victim during their entire experience with the criminal justice system in order to attenuate any suffering incurred during this period¹⁰.

However, the idea, which is largely supported by certain victim rights movements, that a penal sanction can symbolically restore victims psychologically and morally, as well as acknowledge their status and their suffering, turns out often to be only an illusion (Cesoni & Rechtman, 2005). The criminal justice processes, and, particularly the trial, are anything but therapeutic experiences for victims. They require victims to relive the violence suffered through the testimony at the trial, as well as at hearings. But these multiple and detailed recollections may create a risk of secondary victimization (Angle, Malam & Carey, 2003; Eliacheff & Soulez Larivière, 2007). Victims are often disappointed by their experience of the criminal justice process. Once their case is dealt with by the justice system, they are left with the lingering feeling that they did not obtain the acknowledgment of their suffering by a legal institution, which is indifferent to their needs and emotions (Rauschenbach, 2010a).

One should also mention the often-argued issue that criminal law reforms can be “victim driven” (Sebba, 2009). Legislation concerning such crimes as domestic violence, rape, sexual harassment, hate crimes, corporal punishment or human trafficking has been the object of much expansion and debates. This trend is not new as such, according to Kirchengast (2006), who claims that “the victim has always played a fundamental role in the formation of criminal law and justice on both a procedural and substantive level” and that “the genealogy of the victim is a vital aspect of the genesis of modern criminal law and procedure in common law systems”. What could be new in this victim-oriented criminalization trend is the influence of victims’ rights organizations and of the increased sensitivity to victim issues, which characterizes our contemporary society. One notable example of influence of victims’ rights organizations that comes to mind is the influence of Mothers against Drunk Drivers (MADD) in the United States, which was instrumental

⁹ 8th consid. of the Council of Europe Framework Decision of 15 March 2001

¹⁰ 6th consid. of the Council of Europe Framework Decision of 15 March 2001

in the reform of laws relating to drinking and driving. These laws appealed to many members of the public, because they referred directly to a representation of a drunken driver as being a dangerous criminal that poses the risk of killing young and innocent children. They thus obtained quite an amount of public support. An emblematical example in Switzerland is the recent modification of legislation pertaining to the imprescriptibility of sexual acts committed on children. This modification is the result of a popular initiative¹¹ generated by a child abuse victims association called “Marche Blanche”. This initiative demanded that penal action and sanctions become imprescriptible for “punishable acts of sexual nature or pornographic acts committed on an impuber child”. Considering that this initiative was excessive, the Federal Council opposed a counter-project proposing to apply the prescription delay of penal action, for serious offenses against physical integrity¹², against life¹³ and against sexual integrity¹⁴ of children aged less than 16, to their majority, that is, 18 years of age¹⁵. The Parliament and the Federal Council had recommended that Swiss citizens reject the popular initiative and to vote for the counter-project, because they considered that the latter project created more problems than it resolved, and that it was not adapted to the needs of child victims of sexual abuse¹⁶ (for more information, see Rauschenbach, 2009). However, Swiss citizens, confronted with both the initiative and the counter-project, chose to adopt the former proposition by popular vote in November 2008. Following this, the Federal Office of Justice was mandated to elaborate a proposition to implement this initiative and to clarify the terminology used in this initiative which was considered fuzzy, such as “prepubescent child” and “punishable act of a sexual or pornographic nature”. Thus, the Federal Council decided to develop another modification to the penal code and the military penal code in order to tackle those issues¹⁷. This legislative project is currently under examination. We will not go into the details of these modifications, as this is not

¹¹ Initiative populaire fédérale pour « l’imprescriptibilité des actes d’ordre sexuel ou pornographique sur des enfants impubères ». See website <http://www.admin.ch/ch/f/pore/vi/vis329t.html>. Last visited on February 21st 2011.

¹² Art. 122 of the Swiss penal code (CP)

¹³ Art. 111 à 113 of the Swiss penal code (CP)

¹⁴ Art. 182, 189 à 191 et 195 of the Swiss penal code (CP)

¹⁵ See Message concerning the popular initiative for « the imprescriptibility of child pornographic acts » and the Federal law on the prescription of penal action in cases of offenses against children (modification of the Penal code and the military penal code) of June 27th 2007.

¹⁶ See the Federal Department of Justice and Police’s press release of October 21th 2008 concerning “actes of child pornography: the imprescriptibility is not the best of solutions”.

¹⁷ See Federal Department of Justice and Police’s press release of May 26th 2010 on the implementation of the initiative for the imprescriptibility of child pronographic acts.

the purpose of this discussion. Suffice is to observe that a popular initiative born through the public's collective emotions stirred up by such words as "children" or "victim" was largely supported by a majority of voting citizens of a democratic country, despite its clear rejection by most political, legal and psychological actors, as well as specialists. However, by ignoring such rational arguments against this initiative, the Swiss citizens took a decision that may not, in the end, serve the interests of the victims in the name of whom they thought they were voting (Rauschenbach, 2009). This example shows the potential downsides of the influence of victim associations on penal reform.

Finally, in this context of increased victim-sensitivity of the public, let us add that the political arena can also be instrumental in using victims or their families in order to influence penal reforms. For example, a law, such as Megan's law, directly appealed to the public's emotions: the title of the law refers to a young child whose victimization justified the development of a sex-offender notification law (Simon, 2000). This "politics of identity" phenomenon shows the new influence of victims on criminal policymaking. Thus, as Sebba (2009) suggests, the influence of victims on the criminalization process is qualitatively different from their past influence on this process.

As discussed until now, penal policies can be affected by rises in crime, but also by variations in public sensitivities towards crime and victims, the relative influence of the media on policymaking, as well as the structure of the political and legislative system. However, the manner in which penal policies evolve from one European country to another differs due to cultural, historical, constitutional and political particularities (Tonry, 2007). Current penal policies are generally less punitive in most European countries (except for the UK) compared to the US, because they are more based on professional views than on populist demands for harsher sentences. Moreover, in most European countries, the judiciary is characterised by political neutrality and professional impartiality and are, thus relatively independent of political manipulations compared to the American judicial system. In a country like Switzerland, which is of particular interest here, public emotions and moral panic phenomena probably do not affect criminal justice policy as much, because of the importance afforded to professional norms of independence and impartiality that characterises its legal system.

Thus, no dramatic punitive turn has been observed in Switzerland. To the contrary, the criminal system is less punitive compared to the beginning of the 20th century. As observed for Finland, Norway or Germany (Lappi-Seppala, 2007; Roché, 2007), we would argue that punitive-oriented political discourse and electoral pledges for harsher laws and sanctioning policies rarely seem to result in the implementation of stricter policies and legislation in Switzerland. However, some recent changes in the Swiss legal scene are worth mentioning, as they attest to a movement towards heightened punitiveness that could affect more criminal policy than actual sentencing practices.

2. The evolution of penal legislation and criminal policies in Switzerland: punitivity on the rise

2.1. The status of the Swiss legislation pertaining to sentencing practices and penal sanctions

Swiss criminal law is characterized by a continental and civil law tradition and its development, in terms of sentencing laws and practices, was influenced mainly by the French and German law. Judges in Switzerland enjoy a wide sentencing discretion and there are no sentencing guidelines, only rules concerning aggravating and mitigating factors and general principles. Judges must motivate their decisions in terms of the type of punishment and the particular sentence they chose to impose. The conformity of sentences imposed by cantonal courts with criminal code criteria and the interpretation of these principles is evaluated by the Swiss Supreme Court.

In terms of penal legislation concerning the sentencing system, practices in Switzerland have shown many transformations in the last decade. The Criminal Code was

revised in 2002 and in 2006, and is currently the object of another revision¹⁸. In a nutshell, we shall try to explain the main changes that were implemented in the 2002 and 2006 revisions, and describe the changes that are likely to appear in the current revision. The 2002 and 2006 revisions will be covered together and considered as a single revision, since the 2002 revised version was the object of further modifications in 2006¹⁹, even before it came into force and even though it had already been adopted by the Parliament. All these modifications came into force on January the 1st 2007. They concerned mainly the separation of the criminal law for minors from the one pertaining to adults and various reforms and changes in the sentencing system. As far as the transformations of the sentencing system are concerned, we only mention one alteration, which is of particular importance for the discussion here. This modification concerns the will to make the imposition of short-time prison sentences an exceptional rather than a regular practice, as they do not correspond to the sentencing philosophy of social reintegration guiding the Swiss penal system. Day fines and community service orders are to replace short-term custodial sentences, whenever possible.

However, this dramatic change towards the replacement of short custodial sentences with day fines and community service orders was not well received by some members of certain political parties who decided to counter these new modifications by invoking their leniency (Kuhn, 2008). Critical opinions against this sentencing system were increasingly expressed through various parliamentary interventions, some of which were accepted by the National Council during a special summer session in 2009²⁰. The parliament then accepted to examine these motions. A new legislative project, which includes certain adaptations that can be rapidly enacted, is, thus, currently being developed. It should follow the recommendations of the majority of cantons concerning the need to re-establish the possibility to impose short custodial sentences, the need to abolish the

¹⁸ See « Rapport explicatif relatif à la modification du code pénal et du code pénal militaire (réforme du droit des sanctions) et communiqué de presse du département fédéral de justice et police du 30 juin 2010 ». http://www.ejpd.admin.ch/content/ejpd/fr/home/themen/sicherheit/ref_gesetzgebung/ref_sanktionensystem.html. Last visited on September 23rd 2010.

¹⁹ See « Message relatif à la modification du code penal dans sa version du 13 décembre 2002 et du code penal militaire dans sa version du 21 mars 2003 » of June 29th 2005. http://www.bj.admin.ch/bj/fr/home/themen/sicherheit/gesetzgebung/abgeschlossene_projekte/strafgesetzbuch_allg.html. Last visited on March 24th 2011. This revision allowed namely the inclusion of provisions relating to internment (extension of the list of infractions that can lead to an internment and possibilities for internment a posteriori) and a provision authorizing the combination of a suspended sentence and an unsuspended day fine or a fine. The modification of the Criminal code was accepted on the 24th of March 2006. See RO 2006 3539

²⁰ See BO 2009 N987

possibility for suspended day fines and community service orders and the possibility to introduce in the law a minimum sum for day fines. As for the abolition of suspended day fines and community service orders, it is interesting to note that this recommendation is justified by many because of the lack of deterrent effect inherent to such types of sanctions. Another stated objective of this revision which is noteworthy is the suggestion to give less importance to day fines and, thus, to eliminate the primacy of this sanction on custodial sentences²¹.

Finally, a recent decision by the Swiss Federal Council to operate certain adjustments to the special part of the Swiss Penal Code in terms of the provisions pertaining to sanctions related to various offenses should be highlighted²². In this context, it is worth mentioning that the special part of the Swiss Penal Code has been the object of 42 modifications during the period lasting from 1978 to 2010. This latest revision will aim, for the first time in the history of Swiss Criminal law, to examine for each provision the correspondence between the sanction incurred and the gravity of the offense, as well as to compare sanctions incurred for offenses of similar seriousness. Such a detailed review is considered necessary in order for judges to have a more flexible range of sanction possibilities. Such adjustments aim to widen their margin of appreciation to pronounce sanctions that are adapted to the blameworthiness of the perpetrator. This latest legislative project will also result in a more punitive stance for sanctioning, among other offenses, violent offenses amounting to negligent homicide (art. 117), negligence causing serious bodily harm (art. 125, al.2), causing serious bodily harm (art. 122), endangerment of others' lives (art. 129), robbery (art. 140) or representation of violence (art. 135). Other offenses, on the contrary, will incur less severe sentences, such as forcible entry (art. 186). Modifications directed at tougher sanctions for violent offenses are deemed "necessary and judicious" according to the explanatory report of the Federal Council on the reform of the sentencing law. They are justified, according to this report, in that they respond to a public opinion and to politicians expressing concerns about the leniency of

²¹ See Rapport explicatif relatif à la modification du code pénal et du code pénal militaire (réforme du droit des sanctions). <http://www.bj.admin.ch/content/bj/fr/home/themen/sicherheit/gesetzgebung/sanktionensystem.html>. Last visited on January 25th 2011.

²² See Rapport explicatif relatif à la loi fédérale sur l'harmonisation des peines dans le code pénal, le code pénal militaire et le droit pénal accessoire of the 8th of september 2010. http://www.ejpd.admin.ch/content/ejpd/fr/home/themen/sicherheit/ref_gesetzgebung/ref_strafrahmenharmonisierung.html. Last visited on September 23rd 2010.

sentencing practices in Switzerland. Another justification invoked by the Federal Council that indicates the importance of public opinion in legislative changes is that such alterations of the sanctioning practices aim to reassure citizens who are feeling increasingly insecure in the public sphere.

Political actors seem thus to be inclined to adopt and revise legislation relative to sentencing practices and criminal policy in a rather frenetic and impulsive manner, which reflects an overall climate of increased penal repression (Killias, 2006). This repressive mood seems somewhat to be getting out of control on and off since it has even led in the last decade in Switzerland to the submission to popular vote of several propositions for penal reforms that are contrary to basic human rights. Two such reforms, which have been accepted recently by the Swiss population, are particularly noteworthy in this aspect. The first one concerns life internment for dangerous offenders and the other concerns the expulsion of foreign offenders. Since these penal reforms constitute a very significant and revealing reflection of the current criminal policy context in Switzerland, they will be discussed briefly. This will enable us to lay the framework for addressing the matter at hand in this research, which concerns road-traffic offenses and their regulation in Swiss penal law.

2.2. The case of penal legislation concerning life internment for dangerous offenders and the expulsion of foreign criminals

To begin with the discussion on life internment for dangerous offenders, a brief introduction about the philosophies guiding sentencing in Switzerland is warranted. The principal aim of sanctions in Switzerland is the reintegration of the offender in society and the improvement of his social skills. Penal sanctions are, thus, considered as an *ultimo ratio*. In other words, they are to be used only if the behaviours that are being sanctioned cannot be dealt with other types of sanctions. Thus, the advantages of penalizing behaviours must outweigh, in the collective sense, the social and individual inconveniences it involves (Graven, 1988). Yet, when a penal sanction is necessary and includes an imprisonment sentence, retribution is the guiding principle in the Swiss

criminal justice system (Roth, 2009). This guiding principle emphasizes on the necessity to individualize sanctions, as well as to rehabilitate offenders through education and training aiming at improving their social skills and preventing further offending²³. However, recently incapacitation has been emphasized as a more appropriate sentencing objective for the specific case of dangerous offenders, than retribution or social reintegration aims. The recent inclusion in the Swiss penal code of provisions allowing the internment for life of extremely dangerous offenders supports this observation.

The inclusion of such a provision was the result of a popular initiative, accepted in 2004 by 56.2% of Swiss citizens, which provided for the possibility of life internment for extremely dangerous offenders. One should note here that this initiative had, prior to its public approval, elicited an unfavourable judgment from the part of the Federal Council and the Parliament, since both of them had recommended its rejection²⁴. This initiative resulted in the introduction of a new provision in the Constitution (art. 123a Cst) which has as a stated objective the incapacitation of persons who are considered dangerous, who committed serious offenses²⁵ and who demonstrate a great risk of recidivism for such acts. Thus, for such a measure to be pronounced, it should be demonstrated that it is highly likely that the offender will commit similar acts and that he appears to be beyond redemption. According to this provision, these persons are not entitled to a leave of absence and their possible release is dependent on further scientific knowledge that could establish their potential for reform and their non-dangerousness for society. However, the legitimacy of such a provision is questionable, since the release of an offender who is interned for life should not only depend on scientific developments, but also on potential improvements that could have been observed in this person (Kuhn, 2010). Moreover, this provision also stipulates that the decision of life internment can be lifted by a judge based on the assessment of at least two independent experts. But whoever expresses an opinion in favour of lifting the life internment for a given case will also be accountable in case of recidivism according to this provision. This could in effect discourage experts from expressing such a favourable opinion (Jung, 2008). This also increases the likelihood that

²³ Art. 75 of the Swiss penal code CP

²⁴ Message of June 20th 2003 declaring the popular initiative valid and recommending its rejection (FF 2003 3979)

²⁵ See art. 64, al. 1 of the Swiss penal code for more details on the types of offenses that are considered serious.

the judge may never take the risk of releasing the interned person, in light of the difficulties related to predicting accurately recidivism for dangerousness. Indeed, this qualification is not based on any valid medical or legal definition (Gravier, 2008), but based on statistical and probabilistic assessments, which are characteristic of actuarial justice (Pratt, 2001). The risk of violence can only be limited, but not predicted. The inaccuracy of such actuarial methods creates the risk of false-positives. This means that it is likely that incorrect predictions of a high probability of recidivism will be produced, since it is difficult to guarantee valid prognoses for indeterminate periods of time (Ebner, Dittmann & Kurt, 2005). Let us add that provisions, for the enforcement of art. 123a, have been developed in order to specify its conditions of implementation²⁶. This article was indeed considered somewhat imprecise in terms of its conditions and the procedure of re-examination of the internment (Jeanneret, Kuhn & Moreillon, 2007). Moreover, this legislative modification was, in some respects, incompatible with the respect of basic human rights, such as those guaranteed by article 5 of the European Human Rights Convention or article 9 of the United Nations International Covenant on Civil and Political Rights²⁷. Provisions for the enforcement of article 123a regulating the conditions in which a life internment decision can be made by a judge were adopted on December 21st 2007. These provisions necessitated a modification of the Penal Code, which came into force on August the 1st 2008²⁸. However, one can only hope, as Jeanneret et al. (2007) suggest, that life internment will be difficult to implement in the future, in spite of these new provisions regulating its enforcement. One fact that can support this optimistic outlook is that, to this day, such a decision has only been taken once (in October 2010) since this new constitutional provision came into force²⁹. This may be an indication of a certain reluctance to pronounce such measures. Such prudence is understandable, given that the Swiss penal system is founded on the premise of the social reintegration of offenders.

²⁶ A working group was responsible for developing legislative provisions in order to make this new constitutional provision concrete.

²⁷ This working group was also responsible to find solutions to render it compatible with the European Convention for Human Rights. See also note 14.

²⁸ See RO 2008 2961

²⁹ See website <http://www.tsr.ch/info/suisse/2560502-premier-internement-a-vie-decide-en-suisse.html>. Last visited on October 8th 2010.

As for the initiative on the expulsion of foreign criminals, let us briefly examine its origins and its legislative outcomes. This initiative, introduced by members of a Right-wing political party³⁰, was submitted in February 2009 to the Federal Council³¹. It proposes that any foreigner who is convicted for certain offenses³² or for having enjoyed welfare payments improperly should be deprived of his rights to reside in Switzerland and should be expelled.

Considering that this initiative was difficult to implement because it is potentially contrary to the principle of proportionality and because it is not compatible with certain basic human rights guaranteed by the Europe Convention for Human Right, the Federal Council decided to develop a counter-project. A consultation process was engaged about this counter-project and most of the participants agreed to the principle of expelling serious foreign offenders. This counter-project aimed at retaining the substance of the initiative, but without contradicting the rights guaranteed by the Constitution and human rights³³. Thus, it provides for an adaptation of the Federal Law on Foreigners. Foreigners who wish to reside in Switzerland will have to be well integrated, which implies respecting the Swiss legal order, adhering to basic constitutional values and willingness to participate in the economic life and undergo training as well. Motives to revoke an authorization of residence in Switzerland for foreigners will be specified and such decisions will take into account the degree of integration demonstrated by the foreigner. Cases of serious offenses will yield systematic decisions of revocation and such considerations will no longer be subject to a margin of appreciation. A residence authorization will be revoked if a foreigner commits an offense which is punishable by a minimum one year prison sentence or if he has been imposed at least a two-year prison sentence.

The Federal Council and the Parliament had recommended the rejection of the popular initiative and the acceptance of the counter-project for the popular votes held on November 28th 2010.³⁴ However, the popular initiative was favoured over the counter-project by a majority of voters. The future will tell whether Switzerland will be able to

³⁰ Union démocratique du centre (UDC).

³¹ See FF 2008 1745

³² Murder, rape, other serious sexual offenses, acts of violence like robbery, traffic of human beings, drug trafficking or burglary.

³³ See Message concerning the popular initiative “for the expulsion of foreign criminals (initiative of expulsion)” and the modification of the Federal law on foreigners. FF 2008 4571. <http://www.admin.ch/ch/f/ff/2009/4571.pdf> . Last visited on September 24th 2010.

³⁴ FF 2010 3853

implement effectively this new legislation in compatibility with the constitution and international law. The outcome of the vote anyhow sends a clear message that levels of tolerance are decreasing in Switzerland and that, consequently, repression is gaining ground.

2.3. Road traffic offenses: heightened penalization in the current evolution of sentencing laws in Switzerland

Given the relative instability of legislation pertaining to sentencing and the increased tendency to repress certain specific criminal behaviours in Switzerland, one can wonder whether this trend has affected offenses that are more common, that is, they are more susceptible to be committed by people who are not necessarily criminals. We are of course thinking of road traffic offenses. According to Kuhn (1987, 2000), there is a tendency to impose longer sentences for offenses such as those related to the Road Traffic Act (i.e. drunken-driving or dangerous driving). This increased penalisation is more related to a rise in the ascribed seriousness of certain offenses (i.e. drunken-driving) encompassed in this legislation, than to a marked increase in the punitivity of judges. As the principal issue at stake in this discussion is the criminal responsibility for fatal road traffic offenses, a brief overview of sentencing laws and legislative transformations related to road traffic violations is indispensable to understand this penalisation trend better.

Let us begin this overview by relaying an observation that is supported by many specialists of road traffic legislation. The legal regulation of road traffic is a domain that has seen many reforms and penal convictions denoting a heightened criminalisation of offenses (Bolle, 1989; Jeanneret, 2008; Wichtprächtiger, 2009). But how did the road traffic legislation evolve in Switzerland? What were the main noteworthy developments in terms of criminalisation of such offenses? The current Road Traffic Act in Switzerland has been in force since 1958 and is the result of a major reform of its legislative predecessor dating from 1932. Indeed, the 1932 Road Traffic Act was mainly developed

in order to regulate traffic; safety and fluidity were the main objectives. For example, no distinction was made between an intentional and a negligent act in the 1932 law (Bolle, 1989). Road traffic accidents were more considered to be due to fate and unluckiness than a culpable action. The 1958 reform of this legislation aimed principally at adding penal provisions to this act. The necessity to penalize and criminalize behaviours that were not considered criminal until this reform developed mainly from the shocking realization of the high prevalence of fatal road traffic incidents in Switzerland after WWII (Killias, 1989). Thus, this reform established, for example, drunken-driving as an offense that was punishable with imprisonment and/or a fine, whereas this behaviour was only punishable with a fine before. From then on, sentences pronounced in the courts became harsher and unsuspended prison sentences were increasingly imposed as a substitution for fines (Killias, 1989).

Yet, statistical studies (Annuaire statistique de la Suisse, 2003, 823 ss.) showed that the rise in severity of sanction and the increasingly frequent recourse to imprisonment did not influence recidivism rates in the context of road traffic offenses. Prison sentences are not the most adequate way to deal with such offenses, since the perpetrators of such acts are not criminals as such. They do not need to expiate their actions and benefit from an educational action that would prepare them to reintegrate the social net (Rusconi, 1985). Moreover, such penal stigmatization cannot be effective if those behaviours that are criminalized are not the object of a widespread condemnation from the part of the population (Pérez-Diaz, 1997). Yet, most people do not perceive most serious violations of road-traffic offenses as dangerous and constitutive of criminal conduct (Federal Office of Statistics, 2008³⁵). Only 15% of respondents seem to think that excess speeding is a criminal behaviour and 47% of respondents consider such behaviour, at the most, careless. Regardless of the demonstrated lack of effect of harsher sentences and the certain gap between legal and social norms about road-traffic offense, the movement towards heightened criminalisation in road traffic legislation and criminal policy current is stronger than ever.

In that sense, one can mention that, during parliamentary debates concerning the aforementioned revision of the general part of the Penal Code of 2002, concerns were

³⁵ Office fédéral de la statistique (OFS), Results of a survey of motor-vehicle drivers 2008.

expressed about the inadequacy of this new reform for road traffic offenses. The possibility of introducing a specific provision containing specific rules only applicable to those offenses was thus raised. These propositions were rejected, but they are illustrative of the sensitivities that are involved in this field of law (Jeanneret, 2008).

Another example concerns a new project of reform of the Road Traffic Act which is embodied in a larger action project called Via Secura³⁶. The purported aim of Via Secura is to increase road safety. Yet, the number of deaths and injured persons has dramatically decreased in the past 40 years. This is all the more interesting since, according to a press release from the Federal Department of Environment, Transports, Energy and Communications, Switzerland, along with the Scandinavian countries, has the lowest rankings in the world in terms of the number of deceased and seriously injured due to road traffic³⁷. It seems that even few deaths and serious injuries are already too much to tolerate in our society and, especially on our roads. This low tolerance for risk on the roads reflects, however, unrealistic expectations, since road traffic offenses are essentially committed by negligence and are often the result of human imperfection, not of a criminal will (Rusconi, 1985).

Via Secura is supposed to include measures that will implement more efficiently the already existing norms and rules. These numerous measures have different aims, such as prevention, the improvement of the implementation of rules, repression, the improvement of road infrastructures and increased accuracy of the statistical measurement of accidents. One of the measures that should be mentioned briefly for our discussion concerns the inclusion of a new provision (art. 901P-LCR) in the road traffic legislation that allows the possibility for the confiscation or destruction of the vehicle used by a person having committed a serious road traffic offense, such as a driving at excess speed. However, this decision will only be possible if the offender acts unscrupulously (driving at excess speed in a particularly dangerous situation) and if he/she is likely to commit another road traffic offense. This program was submitted to the parliament in October 2010 and is currently under parliamentary scrutiny.

³⁶ See the explanatory report concerning the project of implementation of the action program aiming at the reinforcement of road safety (Via Secura) of November 5th 2008. http://www.admin.ch/ch/f/gg/pc/documents/1563/Bericht_f.pdf. Last visited September 24th 2010.

³⁷ See press release of November 19th 2009 concerning “the biggest risk for road safety remains the human being”.

Let us add that against the backdrop of such initiatives as Via Secura, a multitude of parliamentary debates have tackled the issue of road traffic legislation and its reform. For the sake of brevity, we will limit ourselves to mentioning the most recent ones. In 2008, an initiative demanding the modification of the Road Traffic Act was submitted in order to sanction more harshly the offense of driving without having a licence³⁸. It was followed the same year by a parliamentary motion asking for specific harsher penal reforms and other measures to deter and sanction dangerous driving more severely³⁹. In 2009, various other parliamentary initiatives or motions were submitted concerning different measures to prevent and deter dangerous driving. They comprise the publication of judgments against dangerous drivers and the indication of such judgments in the driving licence of the incriminated driver⁴⁰, the confiscation of dangerous drivers' vehicles⁴¹, the compulsory installation of a black box in the vehicle of persons convicted for dangerous driving⁴² and imposing harsher punishment on dangerous drivers⁴³. Finally, let us also mention a cantonal initiative that was brought out in 2010 concerning legal measures against dangerous drivers which aim to increase the maximum penalty for negligent homicide from 3 to 5 years of imprisonment⁴⁴. One can conclude from the intense political attention afforded to road traffic penal reform that road traffic offenses are considered as significant issues in the Swiss social scene.

This last observation is all the more true, given a recent popular initiative created at the beginning of 2010 by a road traffic victims' association called Road-Cross⁴⁵. This initiative demands the modification of the Federal Constitution by the addition of art. 123c related to the protection against dangerous drivers. Among the provisions it contains, some aim specifically at imposing harsher penal sanctions for dangerous drivers. Drivers who intentionally violate elementary road traffic rules and who wilfully disregard the high probability of the risks of causing an accident that can lead to serious

³⁸ See parliamentary initiative Heer 08.421 of March 20th 2008 concerning the Modification of the Road Traffic Act

³⁹ See Motion Humbel 08.3776 of December 4th 2008 concerning the "halt to dangerous driving and rodeos".

⁴⁰ See parliamentary initiative Amstutz 09.446 of June 10th 2009 concerning offenses committed by dangerous drivers and the publication of the judgment and its inscription on their driving licence.

⁴¹ See parliamentary initiative Malama 09.447 of June 10th 2009 concerning the confiscation of dangerous drivers' vehicles.

⁴² See parliamentary initiative Segmüller 09.448 of June 10th 2009 concerning convicted dangerous offenders and the compulsory installation of a black box.

⁴³ See parliamentary initiative Aeschbacher 09.449 of June 10th 2009 concerning harsher punishments for dangerous drivers.

⁴⁴ See the cantonal initiative of Solothurn 10.303 of January 8th 2010 concerning measures to fight against dangerous drivers.

⁴⁵ See <http://www.admin.ch/ch/f/ff/2010/2409.pdf>. Last visited on September 25th 2010.

injuries or even death incurred by their actions⁴⁶ are to be punishable by a prison sentence of minimum one and maximum four years. Harsher imprisonment sentences are to be imposed if the dangerous driver's actions resulted in serious injuries or even death for others. Road-Cross has until the 27th of October 2011 to obtain 100.000 signatures for this initiative to be valid. If they are successful, this initiative will have to be taken into account by the Federal Council and will be probably followed by a popular vote. However, this initiative has been the object of much criticism by legal experts. It provides, just like the previously mentioned life-internment and imprescriptibility initiatives, for a constitutional change concerning a penal issue. This new trend poses the risk of creating legislation that is specific to a given category of offenders, when the objective of the Swiss penal code is to allow for a sanctioning system which is applicable to all perpetrators of offenses (Depraz, 2010). Whatever the outcome of such an initiative, it is reasonable to expect harsher sanctions to be imposed for road traffic offenses, such as dangerous driving, given the recent proposal to revise the special part of the Penal Code that was mentioned previously. This revision provides, among other propositions, for an increase of the maximum penalty for offenses of negligent homicide and offenses causing serious bodily harm. These legal qualifications being generally applied to serious road traffic offenses which result in harmful consequences, dangerous drivers could be, in the future, liable to prison sentences of more than 3 years (which is the maximum penalty for negligent homicide currently).

As demonstrated until now, the field of road traffic legislation and criminal policy is currently undergoing significant transformations. Penal reforms and changes in the legal regulation concerning the issue of road traffic are countless and many are considered by some specialists (Giger, 2009) as superfluous.

Aside from the fact that road traffic offenses are the object of increasing attention from legislators, other reasons explain why this issue was chosen for its particular relevance to research concerning criminal responsibility attributions. First, driving is an everyday life activity which concerns the majority of citizens and which is related to many different social representations and attitudes. It is an activity that has contributed

⁴⁶ These actions are specified as being excessive speeding, dangerous overtaking and participating to illegal motor-races.

greatly to our modern world, in terms of mobility, flexibility and time management. It is also a source of anxiety, because of the risks of accidents related to driving and also because of the regulatory processes attached to it (traffic laws and rules, traffic controls, accident prevention campaigns), as well as the potential problems attached to it (traffic jams, aggressive interactions with other motorists). Most people have thus opinions and representations about driving, in terms of the advantages and inconveniences associated with it, as well as in terms of the potential risks and the problems it involves. It is a social fact that is attached to many different representations in people's minds whether positive (i.e. liberty, speed, mobility, prestige, comfort) or negative (i.e. accidents, legal sanctions, traffic jams, pollution). Moreover, as demonstrated above, it is a domain of legal regulation which is particularly affected by penal reforms and penal repression trends (Jeanneret, 2008). Finally, it is a domain of life which is greatly influenced by uncontrollable factors such as human error, fate and situational circumstances (traffic, weather, road infrastructure and conditions). Thus responsibility attributions are often difficult to make and have to take into account various aspects of the situation that is judged.

3. What about public attitudes about punishment?

A tendency for certain offenses to be increasingly criminalised in Switzerland has been discussed until now. This tendency is however not generalised and seems to be affecting certain areas of criminal law more than others. Moreover, judges do not seem to be following this trend until now, since they often favour penalties situated at the minimum end of the continuum of the sentence scale at their disposal for a given offense. Judges could be, however, imposing sentences that are harsher than what the public would impose when confronted with concrete cases (Kuhn & Vuille, 2009, 2010). Since public opinion and attitudes concerning punishment and the administration of justice are often invoked by politicians and the media to justify harsher sanctions and increased criminal responsibility for certain offenses, these issues will be developed further in this section. We will begin with an overview of research on public attitudes about punishment

and discuss about the measurement of such attitudes and continue by considering the issue of more general attitudes concerning the criminal justice system and its administration. Research findings concerning public attitudes towards punishment and the administration of justice in Switzerland will also be addressed.

3.1. Overview of research on public attitudes about punishment

Much research has focused on the issue of public attitudes about punishment (Hough & Roberts, 2002; Kury & Ferdinand, 1999; Roberts, 1992). Two dimensions have been examined in particular: rational and knowledge-based attitudes and emotional attitudes.

On the knowledge-based or cognitive-level, studies focused on understanding the nature of the quality of the information the public bases its attitudes on (Hough & Roberts, 2004). Indeed, public misunderstandings of crime and justice can lead to penal populism if poor information is exploited for purely electoral objectives by politicians (via the media). Public attitudes vary indeed according to the degree and quality of knowledge possessed by members of the public about the criminal justice system. For example, as demonstrated by Kuhn (2002), the less people know about the penal system and its practices, the more punitive attitudes they display.

The emotional dimension of research on public attitudes about punishment highlighted the existence of symbolic and emotional meanings of crime. In that perspective, issues such as the experience of insecurity and fear of crime and, more generally, the exploitation and exacerbation of these feelings through political rhetoric have been the object of many analyses (Dowler, 2003; Garland, 2001). Being attuned to public emotions and moral panics is thus crucial when conveying penal policy-related information (Goode & Ben-Yehuda, 2009); politicians, the sensationalistic media and various moral entrepreneurs operate clearly under this assumption (Kennamer, 1992). Punitive attitudes are thus formed through the experience of emotions (Forgas, 2008) or the formation of beliefs (Feather, 1982; Fischbein, 1967).

Apart from knowledge-based and affective influences, other factors have been found to influence punitive attitudes. As past behaviour related to an attitude can influence

attitude formation (Fazio, 1987), experience of crime has been shown to affect the formation of penal attitudes (Stack, 2000). Attitudinal shifts in terms of support for punishment aims have also been observed (Hough & Roberts, 1998; Roberts, 2002). Research shows that although members of the public seems, at first glance, more favourable to punitive sanctions, they also adhere to more rehabilitative aims for some offenders under certain conditions (Payne, Gainey, Triplett & Danner, 2004).

People are more likely to favour multiple sentencing goals; rehabilitative and punitive aims could coexist in their attitudes towards punishment (Doble, 2002). One reason for the recurrent finding of public punitive attitudes could be related to the fact that people may favour retributive means as a sanction, such as prison, simply because they are more familiar with this sentencing aim. Another reason for these discrepancies could be that studies finding an overwhelming support for retributive attitudes may have relied more on global questions to measure attitudes than on more specific situations (Applegate, Cullen & Fischer, 2002). Thus, giving careful attention to measurement issues is essential to ensure reliable and valid findings. It should definitely be considered, when carrying out such research.

Understanding public attitudes towards punishment is crucial, since they can be taken into account by policy-makers and legal decision-making actors to justify their decisions (Roberts, Stalans, Indemaur & Hough, 2002). This is all the more important since politicians, and maybe even judges, may have a distorted view of what the public thinks in matters of punishment. They indeed may base their representation of public attitudes on the somewhat poorly scientific findings of opinion polls and the sensationalistic media discourses (Pritchard, 1992; Roberts & Hough, 2002).

Public attitudes towards punishment are diverse and complex (Sprott, 1999). Contrasted differences in the public attitudes have been observed depending on the attitude measurement format and design used (Stalans, 2002). Thus, measurement of these attitudes should be carried out with a careful attention to validity and reliability issues related to attitude measurement and information processing (Stalans, 2002).

One should take into account the fact that attitudes are stored in memory in an associative network (Fazio, 1989). This means that the attitude measure constructed must

capture the values, beliefs, emotions and experiences that are connected to the attitude it is related to (Lord, Desforges, Fein, Pugh & Lepper, 1994).

Moreover, some attitudes are easier to recall than others are, and are thus, more accessible; the former are referred to as surface attitudes and the latter are called inner attitudes. For example, most of the people who show support for the death penalty in general (surface attitude) will not be in favour of such a sentence if presented with a more concrete and detailed case. This discrepancy is explained by the fact that, when people are confronted to a more comprehensive description, they will tend more to take into account their inner attitudes and disregard their surface attitudes (Roberts & Stalans, 1997).

Another important issue to consider is the tendency for people to hold stereotypic or unrepresentative conceptions of offenders that are related to media distortions and overrepresentations of certain criminal acts and deviant behaviours (Roberts & Stalans, 1997). Thus, people who show punitive responses to general questions are often thinking of extremely serious and violent offenders whom they feel deserve a harsh sentence. When people resort to surface attitudes, stereotypic or unrepresentative conceptions of offenders, they rely on information that is most easily recalled using an availability heuristic (Tversky & Kahneman, 1973).

Finally, the issue of attitude strength is also a crucial factor that must guide the construction of questions (Petty & Krosnick, 1995). Such measures should thus consider assessing how important the attitude is for the respondent (personal relevance) and if the respondent shows some degree of ambivalence towards the attitude or conflicting values underlying this attitude (Stalans, 2002). Indeed, public views can be easily swayed in one direction or another and policy-makers and the media are well aware of the malleability of attitudes when they propagate penal populist and distorted visions of crime issues (Hough & Park, 2002; Indermaur & Hough, 2002).

3.2. Public attitudes to criminal justice and its administration

The evaluation of penal attitudes is part of the more global move to assess attitudes that are critical for the legitimacy and efficiency of the administration of justice (Roberts & Hough, 2005). The legitimacy of the institutions of criminal justice can indeed be easily undermined if the gap between the views of the public and the practice of the justice system is too wide. Such a discrepancy can also discourage people from cooperating with the penal system and undermine the administration of justice. Public attitudes concerning the administration of justice are thus a key factor to consider when assessing public confidence in justice and exploring ways of reducing the discrepancy between public opinion and criminal justice practices (Hough & Roberts, 2004). Assessing and promoting public confidence in the administration of justice is crucial, since the effective operation of the criminal justice system depends greatly on the members of the public believing in its fairness and effectiveness (Indermaur & Hough, 2002).

Public confidence in criminal justice can be assessed in various perspectives: by considering levels of satisfaction and confidence with the penal response to crime, by comparing different actors or agencies within the criminal justice system or by evaluating trends in public confidence levels over time and across different countries (Roberts & Hough, 2005). Public attitudes concerning the administration of justice often reveal particularly negative evaluations pertaining to judges: they are criticized for being “out of touch with what ordinary people believe” and accused of sentencing leniency (Roberts, Crutcher & Verbrugge, 2007). However, in some cases, this perception may be unfounded and could be more the result of a lack of awareness of sentencing practices (Roberts et al., 2007). Negative views of the criminal justice system and its actors are often related to the exploitation of crime issues by politicians (and relayed by some media sources) who are more interested in propagating sensational and fear-stimulating information than evidence-based facts. This leads to people overestimating crime rates and underestimating the severity of current sentencing practice (Hough & Roberts, 1998). Social factors of informational influence, such as those related to policy-makers and the media, contribute to shaping people’s attitudes by conveying information and presenting

it as evidence about the nature of reality (Deutsch & Gerard, 1955; Eagly & Chaiken, 1993). Thus, public attitudes about criminal justice are dependent upon their knowledge of this system, and of crime and criminal justice statistics (Roberts & Hough, 2005). However, as Mutz (1998) points out quite pertinently, the media's influence on people's attitudes about crime may concern more their perception of collective experiences than their immediate personal situation and experiences. Moreover, public confidence in justice is also affected by transformations in social values and expectations (Sherman, 2002). Indeed, it can be argued that the advent of "post-materialist values" has resulted in an increasing and generalized public dissatisfaction with institutions (Inglehart, 1997). In our contemporaneous society, many forms of social hierarchy authority are being challenged in their legitimacy. One can cite as an example the parental authority over children, the authority of schoolteachers over their students or the authority of doctors over their patients. Legal cynicism could be another form of challenge of the legitimacy of authority (Sherman, 2002), whereby people trust laws, but not legal institutions. They support law because it corresponds to their personal sense of what is moral and not out of sense of communal obligation to an authority. As Sherman suggests "this new world may be one in which trust in criminal justice is no longer automatic; it must be earned every day, with each encounter between legal agents and citizens". In that sense, Tyler's (1990, 1998) research findings on procedural justice come to a similar conclusion. People are more likely to obey and trust the law if they feel that they have been treated fairly and that they have been given adequate recognition and respect.

3.3. Public attitudes towards punishment and the criminal justice system in Switzerland

Public attitudes about punishment in Switzerland have been the object of an increasing attention by research in the last decade. In the interest of brevity, we will restrict our focus on the results of two studies on this issue. These findings will help us to gain a clear picture of public attitudes towards justice and punishment in the Swiss context.

A first research to be mentioned was conducted by Kuhn, Jayet & Villetaz (2001) concerning the differences between judges and the public in terms of punitivity and the role of the sanctioning unit used in the quantum of the sanction. For our discussion, we will only describe the results pertaining to the punishment goals that were associated to imprisonment and the results concerning punitivity levels as such.

The judges who participated in this study considered that punishment goals associated with imprisonment sentences that were the most relevant in their eyes were those related to special deterrence, punishment and social integration. However, for the public, the survey carried out shows that social integration obtained the most favour from respondents and was followed, in levels of adhesion, by punishment and protection of the community through incapacitation. The differences, in terms of the importance attached to various punishment goals, between judges and the public are probably not the result of divergent attitudes. According to Kuhn et al. (2001), they may be more the result of the public thinking of the enforcement of the sanction when responding, while the judges may be more referring to the judgment in their responses. Anyhow, a noteworthy observation concerning these results is that as much the public as the judges attach a great value to social integration and punishment, which are the two principal stated aims of the Swiss sentencing system. The public is, in that sense at least, thus quite in tune with the Swiss sentencing system and the judges in charge of enforcing it. However, even though the public and the judges show convergence for two punishment goals, let us not forget that they differ on a third one; the public favours the protection of the community through incapacitation and judges favour special deterrence.

Another notable result is that the majority of respondents from the public impose lower sanctions than those inflicted by judges when judging actual cases. However, when looking at mean levels of sanctions imposed by respondents, an opposite conclusion could be made, in line with previous findings (Tremblay, Cordeau & Ouimet, 1994). The public (subjective punitivity) tends to impose harsher sentences than judges (objective punitivity). However, this result being based on mean sentences, it is probably due to the fact that a minority of ultra-punitive respondents from the public tends to impose very harsh sentences. Indeed, when looking at the median values, one notices that a majority

of the public may be imposing less severe sentences than those imposed by judges. Thus, if one only focuses on means, the ultra-punitive minority creates a disproportionate finding of higher levels of subjective punitivity compared to judges (Kuhn, Villetaz, Willi-Jayet & Willi, 2004). Let us specify that this small proportion of respondents from the public who inflict extremely harsh sentences are more likely to stem from modest backgrounds, live in big cities, to not consider themselves capable of judging whether the criminal justice system is too harsh or too lax and to possess a low level of education. Thus, it is this fringe of the population that should be more informed about the criminal justice system and its sentencing practice. Such communication may contribute, according to Kuhn et al. (2001), to bridge the potential gap between the citizen and the criminal justice system.

These results point globally towards a certain divergence between the public and the judges in terms of punitivity, since the majority of the public, when evaluating concrete situations, could be more likely to favour slightly less repressive sanctions than judges in terms of the sentences imposed. Let us add that these findings were corroborated by a study carried out in 2007 in order to verify their replication.

Another research carried out in the Swiss context consisted of a quantitative survey on sentencing attitudes, in terms of values attached to penal sanctions and the criteria used to associate a legal sentence to an offense, as well as the relationship between these attitudes and the public's knowledge and perceptions with regard to criminal offenses and offending (Languin, Kellerhals & Robert, 2006). Three conceptions of criminal justice corresponding to distinct punishment philosophies were highlighted.

A first perspective, which was held by half of the respondents, shows quite a positive stance and focuses on redemption. It purports that penal sanctions should aim primarily at the reintegration of the offender in the community. The offender is perceived in this conception as the product of social exclusion and economic hurdles. Alternative sentencing options such as community service orders, restitution or mediation are more often favoured in this perspective. In terms of more general attitudes towards the administration of justice, the redemption view reflects a great deal of trust in the judicial institution's capacity to deal with offenses.

Another dominant perspective focuses on the necessity of equity. This conception emphasizes the individual responsibility of the offender and the necessity for the sanction to be tailored to the objectivity of the offender's culpability. Subjective factors, such as the social context surrounding the offender's harmful actions, are not to be taken into account in the quantum of the penalty incurred. Retribution here is the main punishment goal that is attributed to the sanction. It aims at the reaffirmation of the social order and the protection of society. This perspective takes thus a harsher stance towards penal sanctions, without however being overly punitive. This conception implies that only a just punishment of the culpable individual can restore the social ties that were severed by the offense. Here the feeling that institutional responses are inadequate is perceptible.

A third and last perspective which is more infrequent, but which demonstrates a more extreme stance concerns stigmatisation. A recurrent vision here concerns the great laxity and inefficiency of the judicial system. Strong feelings of insecurity and of a breakdown of society are dominant. The power of moral vindication of penal sanctions is of particular importance in this conception. Thus, the principal sentencing aim is exclusion from society. The sanction should incapacitate the offender, but also create suffering and shame for him/her. In this perspective, there are no limits to the level of harshness of the sentence incurred by the offender.

In terms of socio-demographic characteristics, the only outstanding factor of influence seems, like in Kuhn et al. (2001) research, to be the level of education. A redemption conception is more likely to be found in individuals presenting a high level of education and a high social status. To the contrary, stigmatisation is more a tendency for individuals who have low-level skills and a low status. Finally, let us mention that high exposure to media representations about crime and the judiciary (newspaper accounts about crimes) and a high tendency to talk about crime-related topics in discussions with others seems to be associated with a higher tendency to demonstrate a stigmatisation view.

Languin et al.'s (2006) study is particularly striking on one issue: Two out of the three philosophies that are highlighted correspond to different views of responsibility. As

the theme of this research concerns the attribution of responsibility, this noteworthy observation should be detailed.

Two views of responsibility, one more individual and one more collective, correspond to the two most dominant philosophies highlighted in this Swiss survey (Widmer et al., 2004). First, the idea of individual responsibility is clearly visible in the equity perspective. The offender is considered to be totally responsible for his acts, acts he chose to commit out of his own free will. This conception is strongly influenced by a philosophy of the will whereby an individual deserves to pay for the acts that he committed in a wilful and informed manner. The offender is considered as a moral actor who entered in a contract with society when integrating it and who is, thus, required to respect its terms by paying his dues through the imposed sanction. In a redemption conception of responsibility, individual responsibility is reduced and the offender can count on the collective to help him/her re-establish the social contract that was severed by his/her actions. The collective is considered here as partly responsible for the offender's actions. It is social exclusion or social inequality which encouraged offenders' to commit crimes. The principal cause of crime is thus to be found in the social net.

However, Widmer et al., (2004) relate these two different conceptions of responsibility to the sanction to be imposed on the offender and not to the level of gravity of the offense (Hammer, Widmer & Robert, 2009). These perspectives of responsibility do not take into account the level of legal liability attached to the perpetrated actions or the mental state of the offender, which are important factors to consider when determining criminal responsibility.

This raises the issue of the different dimensions of criminal responsibility and particularly, the question of the nature of ordinary conceptions regarding this form of responsibility. How do people reason about criminal responsibility and what underlying dimensions do they rely on when doing so? Do these ordinary conceptions of responsibility differ from legal conceptions of criminal responsibility? Can divergences, such as those found in the aforementioned studies concerning punitivity, be found between ordinary conceptions and legal conceptions of criminal responsibility? This question will be discussed in the following section.

4. Ordinary conceptions vs. legal conceptions of criminal responsibility

The issue of lay perceptions of justice and their degree of convergence with regard to criminal law doctrines and criteria has been the object of much attention recently (Kahan, 2000; Robinson & Darley, 1995). This perspective has been studied with regard to many different legal issues: punishment goals and philosophies (Carlsmith, Darley & Robinson, 2002; Darley, Carlsmith & Robinson, 2000; Robinson & Darley, 2007); procedural justice (Boeckmann & Tyler, 1997, MacCoun & Tyler, 1988; Tyler, 1988); criminal responsibility or culpability⁴⁷ (Finkel, 1996; Roberts, Golding & Fincham, 1987); the perception of and distinction between various types of criminal offenses (Smith, 1991; Robinson & Kurzban, 2007); the confrontation of lay perceptions with legal reasoning (Darley, Sanderson & LaMantia, 1996; Green, 1968); and jurors' understanding of legal criteria (Finkel, 1995; Finkel & Handel, 1989; Smith, 1993).

Findings of substantial divergences between legal rules and codes and lay perceptions of justice in various studies stimulated recurrent calls for criminal law and legal sanctions to take into account community standards (Darley et al., 1996; Darley, Tyler & Bilz, 2003; Robinson & Darley, 2007). These claims are often justified by the need for the legal code to mirror the community's moral sentiments, in order for citizens to comply with criminal law and to refer to it as a guide in their everyday moral behaviour (Tyler, 1990). However, when the standards set by criminal law cannot be adapted to community standards, another strategy to avoid deviations from the community' shared intuitions is to investigate ways of changing community intuitions about justice (Robinson & Darley, 2007). Nevertheless, such changes are more likely to be successfully operated for violations that do not yield a widespread agreement concerning their wrongness and immoral nature across demographics and cultures. One example of such a violation

⁴⁷ Even though these two concepts are not equal as far as Swiss criminal law is concerned, we will consider these as equal for the needs of this research. Criminal responsibility presupposes culpability in Swiss criminal law. This means that a person cannot be considered legally culpable of an act if he/she is not deemed criminally responsible or criminally liable. Criminal responsibility, in the sense of Swiss penal law, is meant as capacity responsibility, that is, as Hart (1988) defines it "the ability to understand what conduct legal rules or morality require, to deliberate and reach decisions concerning these requirements, and to conform to decisions when made". Here, however we will consider criminal responsibility in the sense of responsibility for crime and liability for punishment or legal responsibility, which corresponds to culpability. Culpability and legal responsibility are thus seen as identical concepts in this research.

would be drunken-driving. Such behaviour, until recently, did not stir a widespread moral condemnation in the community. Yet, vigorous and multiple campaign efforts to change public perceptions about the harmful consequences related to drunken-driving have proved successful in many countries.

Whatever the conclusions elicited by such findings of divergences between ordinary conceptions and legal thinking, determining the way in which concepts and criteria from legal theory relate to commonsense reasoning applied in everyday life is important. Commonsense standards, such as “the reasonable man standard” are often referred to in legal reasoning (Green, 1968). To that extent, the law uses concepts of responsibility that come from commonsense understandings of this notion (Lloyd-Bostock, 1979). Ordinary concepts and reasoning are central for legal decision-making, because they are involved in everyday processes that this same law is supposed to regulate (Hart & Honoré, 1985).

4.1. Commonsense justice research on responsibility

Fincham & Jaspars (1980) were among the first researchers to reflect on ordinary conceptions of responsibility, that is, the meaning of responsibility in everyday life, and to analyse them with respect to the concept of responsibility used in criminal law. They defined responsibility in ordinary representations in terms of being “answerable to someone or some social institution for his actions or the outcomes of those actions”.

Finkel (1995), who defines commonsense justice as “the ordinary citizen’s notions of what is fair and just, and what is culpable and what is not”, applied this perspective to the issue of culpability and its legal and commonsense conceptualisations. His examination of citizens’ conceptions of culpability and legal notions of culpability demonstrated that the latter seem to underlie a more subjective view of culpability than the former conceptions (Finkel, 1996). For example, contextual factors seem to be considered in a broader perspective in ordinary reasoning, compared to the law: elements that are backward or forward in time, with respect of the incriminated action are more likely to be considered in commonsense. Moreover, ordinary reasoning considers a subjective factor, such as intent (understood in a subjective manner: as related to emotions, motives and

meanings), to be a more relevant feature to consider when determining culpability than objective acts or rules. However, this does not mean that ordinary conceptions of culpability are entirely subjectively based. Objective factors seem also to determine these ordinary conceptions (Finkel, Maloney, Groscup & Valbuena, 1995; Finkel & Groscup, 1997).

Research on insanity decisions and responsibility (Bailis, Darley, Waxman & Robinson, 1995; Finkel & Handel, 1989; Hans & Slater, 1984) has tried to gain a better understanding of the nature of the differences that could possibly exist between commonsense notions of criminal responsibility and those used by the criminal justice system. Hans & Slater (1984) carried out a survey about the test of legal insanity during the time of John Hinckley's trial, which had stirred considerable debate about insanity in the media. The findings were quite troubling, since most people's responses were intuitive, but far from the definitions used in courts. People's responses were often "*don't know what you are doing*". These results pointed thus towards a considerable gap in the public's understanding of the legal definition of insanity. Finkel & Handel (1989), in a more experimental study where mock jurors had to decide on insanity cases without instructions, demonstrated that people take insanity decisions that are based on a much more complex array of factors than those proposed in legal test of insanity. Moreover, volitional and cognitive factors such as, respectively, irresistible impulse or distorted thinking, are not afforded the same relevance by jurors, as some legal tests of insanity would have allowed. The same observation can be made for impaired awareness and perception, which is not centrally relevant for respondents, whereas it is an important element in legal tests. The factors that are deemed more appropriate by respondents are related to the capacity-incapacity construct and to the culpable-non culpable dimension. Thus, the public could be more likely to relate insanity to moral concepts, such as culpability, as well as to assimilate insanity to more general concepts like capacity. However, ordinary conceptions may be less likely to relate more technical and specific conceptions, such as consciousness or voluntariness, to insanity. Finally, Bailis et al. (1995) compared community standards of criminal liability and insanity to corresponding legal standards. Their findings point to a certain convergence between lay standards and legal standards used in American courts. Respondents were more likely to consider both

control and cognitive impairment taken together as a determining criterion for their insanity decisions. This reasoning is in concordance with certain legal tests, which allow for the presence of both these criteria to yield insanity decisions. Culpability judgments made in ordinary reasoning are thus complex. They often reflect observations of grades of culpability and not expressions of absence/presence of culpability, which are characteristic of legal reasoning for insanity (Finkel & Slobogin, 1995).

This brief review of research shows that ordinary conceptions of criminal responsibility and culpability may underlie more complex dimensions than those reflected in legal reasoning. People may be more susceptible to perceive different grades of culpability, than produce all-or-nothing evaluations of culpability. Moreover, these graded judgments, in ordinary reasoning, may be more morally tainted and less spontaneously related to rational criteria such as consciousness and voluntariness. This complexity could be partly the result of the influence on ordinary reasoning of such factors as, knowledge and attitudes about culpability, or justice and the use of prototypes and schemas of criminal behaviour. The sources of influence on ordinary reasoning will be briefly detailed.

4.2. Ordinary reasoning about responsibility and the role of social representations and individual schemas or prototypes

A social representations perspective (Doise, 2001) could explain why people reason about responsibility and culpability in a more complex and multi-dimensional way compared to legal experts. People, when confronted with a given concept such as responsibility, develop representations of it that are based on expert knowledge, but that result from the modification, or even popularisation of this knowledge, operated by communication tools, such as the media or social interactions. The representations are in a way transformed into a commonsense knowledge (Moscovici & Hewstone, 1984) by a process of objectification of notions, once abstract and general, into concrete concepts. Moreover, in order to render this representation less strange or more familiar, a second process, called anchoring, will insert this object of knowledge into pre-existing categories

or meanings (Jodelet, 1984; Moscovici, 1961, 1984). According to Doise (1990, 1992), social representations must be anchored into a familiar framework which is related to the person's social reality and values. Different types of anchoring are possible. They can concern general beliefs and values that can determine the manner in which we give meaning to a given object of knowledge, such as the belief in equality. Social representations can be anchored in a person's understanding of social categories or positions, such as their perception of the relationships between different racial or socio-economic groups. Finally, a third source of anchoring can be related to a person's particular social position or membership, since a given social insertion can lead to specific interactions and experiences that can shape a person's representations of a given social object. In this perspective, several studies (Clémence & Doise, 1995; Doise, 2001) have demonstrated that ordinary reasoning about justice is based on expert theories of justice produced by legal and philosophical thought, but is underlain by a distinct process of reasoning. They described how an expert knowledge can be transformed into an ordinary conception about a given social fact, such as human rights.

Similarly, Haney (1997) uses the term of "symbolic legality" to describe the social representations of individuals who experienced the criminal justice system which are influenced by the way in which others interpret and perceive the legal system. Popular conceptions about the law and its principles strongly depend on the messages and information that are communicated by legal sources themselves and by the media acting as legal socialisation agents. However, these informational influences more often distort public ideas about justice than provide objective information (Haney, 1997).

Other researchers (Roberts, Golding & Fincham, 1987; Roberts & Golding, 1991; Wyer & Srul, 1986) consider people's social and moral responsibility judgments as the result of a social construction whereby a person uses his/her individual schemas when cognitively assessing and categorising others. People who are presented the same facts and information come to very different verdicts, because of differences in their representation of the evidence and the instructions that are linked to their attitudes, life-experiences, as well as their individual experiences and their inferences about the meaning of distinct events (Pennington & Hastie, 1986). In the same vein, juror studies show that jurors use prior knowledge to build naïve representations of legal concepts and

to perceive facts and verdict decisions (Smith, 1991). They often use crime prototypes to guide their decisions. Such typical exemplars of crime categories are associated with characteristic features. However, these typical representations are often not legally relevant and can conflict with the judge's instructions for verdict selection. Responsibility in that way can be seen as a social fact and judgments of responsibility can be considered as rules that are applied to individuals, whether they originate from the court, from public opinion or from the individual. These rules are part of a system of collective representations of a given society concerning its institutions (Fincham & Jaspars, 1980). Let us add that attitudes and beliefs related to culpability and justice have been demonstrated to have a certain influence on the way people reason about culpability and responsibility (i.e. Loudon & Skeem, 2007; Roberts et al., 1987; Roberts & Golding, 1991).

Ordinary reasoning has most often been compared to legal standards for responsibility ascriptions⁴⁸ that are made in insanity verdicts. However, the psychological study of responsibility attributions in criminal contexts with regard to ordinary reasoning of responsibility has been the object of less attention (Lloyd-Bostock, 1979). It is more philosophers such as Hart & Honore (1985) who have focused on the comparison between everyday commonsense reasoning of responsibility and principles used in law to determine responsibility. With regard to responsibility, psychology has more often contributed to decisions as to whether a person's mental state reflects his/her responsibility for his/her actions. The examination of ordinary reasoning related to responsibility attributions for different contexts of life, in which people have to make sense of uncertainty, failure or unexpected events, has been an important focus for attribution theory research. Attribution theories have thus been developed to assess how people subjectively assign responsibility. Commonsense reasoning about responsibility and related concepts such as blame and intentionality have been extensively studied by social psychologists in the last decades. Moreover, philosophical and psychological studies have often related ordinary reasoning about responsibility to moral responsibility

⁴⁸ Responsibility ascriptions in that context are related to what Hart (1988) calls capacity responsibility. Capacity responsibility relates to a person's ability to understand and behave according to the norms that are set by the law and morality. Thus, when a person is judged to possess capacity responsibility, one can determine his/her liability responsibility.

and argued that they should be distinguished from the concept of legal responsibility. The influence of emotional, attitudinal and normative factors on such attributions has increasingly been highlighted. These different issues will now be described in further details.

5. Attributions and commonsense explanations of behaviour: responsibility-judgments and the role of emotional, attitudinal and normative factors

Research on commonsense explanations of behaviour related to responsibility-judgments (responsibility, intentionality and blame) draws from attribution research. This research perspective focuses on understanding the causes of behaviour and the manner in which people use information to develop causal explanations for events. Psychology's interest in the attribution of responsibility resulted from the idea that, when confronted with an event, individuals do not only search for their causes, but also need to credit an actor with intent, responsibility and blame for the action that caused the event (Heider, 1958; Fincham & Jaspars, 1980). Responsibility attribution is essential for interpersonal relations, since these depend extensively upon people's interpretations of other persons' behaviour (Heider, 1958).

5.1. Responsibility, intention, controllability and blame

It is a common understanding that the attribution of responsibility is one of the stages of a hierarchical model of decision-making that takes place when a person judges another person's actions (Heider, 1958; Shaver, 1985; Weiner, 1995a). This model starts with an attribution of *controllability* and *cause*, indicating a relatively simple link between the agent and the event (Jaspars, Hewstone & Fincham, 1983), follows with an attribution of *responsibility* and ends with an attribution of *blame*. Attribution of responsibility is a reflection of the degree to which agents are held accountable for the consequences of

their acts (Fincham & Jaspars, 1980) which depends on the perceived intention of the agent and circumstances (Ferguson & Rule, 1983; Heider, 1958). The level of responsibility attributed for an act can be variable. It depends on several factors, such as whether the act that brought the harmful consequences was controllable (Weiner, Perry & Magnusson, 1988), could have been voluntarily changed in the past (Weiner, 1995b), was intentional (Schultz, Schleifer & Altman, 1981), was reflected upon (Fincham & Jaspars, 1983) or if the consequences of the act were predictable (Schultz et al., 1981). Thus, responsibility will be heightened if the person judged acted intentionally to produce predictable consequences and acted voluntarily without any external pressures or mitigating circumstances (Fiske & Taylor, 1991). The role of context is thus essential in determining whether responsibility can be attributed, in assessing the extent to which the person is to blame and in interpreting the meaning of such an attribution. However, such contextual factors are also very important for the legal determination of the degree of legal responsibility or culpability. Indeed, degrees of legal responsibility, which reflect such actions described as committed “purposely”, “knowingly”, “recklessly” or “negligently” seem also to be understood by ordinary people in their differences of responsibility gradation (Heider, 1958). There seems thus to be some correspondence between legal frameworks of responsibility and ordinary reasoning (Hamilton, 1978; Lloyd-Bostock, 1979).

Intention is a very important factor to take into account in the process of attribution of responsibility, since such judgments will be more severe for an act committed with the intention to harm than for an act caused by negligence (Alicke, 2000; Schlenker, Britt, Pennington, Murphy & Doherty, 1994; Weiner, 1995a, 1995b). According to the correspondent inference theory (Jones & Davis, 1965; Jones & McGillis, 1976), people can infer intention from a person’s conduct if three elements can be determined: a) the behaviour is acted out freely, b) the effects of this behaviour are foreseeable and c) the agent is able to achieve the desired goals.

However, evaluating responsibility is a process that involves decision-making that is more complex than simply identifying intention in terms of its presence or absence. Several degrees of intention can be perceived when judging the responsibility of someone

and the more clearly this intention is attributed to this person, the more responsibility will be assigned to him/her (Finkel & Groscup, 1997; Robinson & Darley, 1995). Thus, a person who committed an intentional act (that is deliberate and voluntary) will be judged as more responsible for it than a person who committed an act carelessly out of negligence. People will also attribute more responsibility to situations describing an act of recklessness, which is the commission of an act while ignoring deliberately and knowingly the probability of harmful consequences, compared to situations describing an act of negligence. Moreover, the gradation of intention that is attributed can also vary depending on the degree of planning of the act that is being judged (Alicke, 2000). These gradations in perceptions have been highlighted in commonsense responsibility judgments of offenses pertaining to civil law (Fincham & Emery, 1988; Fincham & Roberts, 1985; Roberts, Golding & Fincham, 1987) and criminal law (Roberts & Golding, 1991).

Furthermore, using a folk theory of mind perspective, Malle & Knobe (1997) demonstrated that most people seem to distinguish pretty well between an intentional act and an unintentional act and are consensual as to the commonsense notions they use to decide if an act is intentional. They also seem to make a distinction between intention (trying, attempting or planning) and intentionality (performing an act intentionally) in terms of their judgments of responsibility and blame, with harsher judgements for situations where the intentionality of the act is clear than for situations where there was only an intention, but the act in itself was accidental (Malle & Nelson, 2003). An example of a situation where there is only intention could be when X wants to kill Y with a gun, drives to the location where he can find Y and on the way to this location accidentally hits and kills Y (who was crossing the street) with his car.

Controllability is also an important factor to take into account when determining responsibility for an action, especially when judging unintentional behaviours that result in harmful events, such as acts of negligence (Weiner, 1995a). Indeed, negligence implies that precautions to avoid a harmful event were taken, but were not adequate, which denotes a failure to control the occurrence of harm. The fact that precautions taken to avoid a harmful event are presented as adequate or reasonable can thus, significantly

influence responsibility judgments (Karlovac & Darley, 1988). Indeed, conducts that involve taking the risk of harmful consequences can be judged less severely (less negligent, less risky, less morally blameworthy) if precautions that are deemed appropriate have been taken to avoid these consequences from occurring. Thus, responsibility judgments for an accident are predicted by the severity of potential harms, the precautions taken to prevent the accident and the likelihood of the accident happening.

Controllability and intention are thus both antecedents of responsibility attributions (Weiner, 1996). Controllability and intention are often interdependent as Weiner (1985, pp. 554) points out with the following words: “individuals intend to do what is controllable, and can control what is intended”.

Attribution of blame, which is the last stage of the hierarchical model described previously, is normally considered to presuppose the existence of judgments of controllability of the cause and of responsibility, and depends on what the observer thinks the agent should have done, that is on personal values (Harvey & Rule, 1978; Heider, 1958; McGraw, 1987). Attribution of blame occurs if the observer evaluates and does not accept the validity of the justifications (disagreement concerning the immoral or unlawful nature of the act) or the excuses of the perpetrator for an act that is perceived as having been committed intentionally (mitigation). However, justification and excuses can also act as possible mitigation factors for levels of blame (Mantler, Schellenberg & Page, 2003).

Research is divided as to the relationship between responsibility and blame. Some (Fincham & Schultz, 1981; Schultz et al., 1981; Schultz & Wright, 1985; Weiner 1995b) show that blame is a consequence of responsibility judgments that influences, in turn, social reactions towards the person perceived as responsible. Others (Critchlow, 1985; Harvey & Rule, 1978; Shultz & Schleifer, 1983) have used responsibility and blame interchangeably as equivalent concepts in their research. However, this equivalence is not acceptable to some authors who clearly distinguish between the two concepts (Shaver, 1985, 1996a, 1996b; Shaver & Drown, 1986). Shaver (1996b, pp. 65) distinguishes blame from responsibility by stating the following: “blame is attributed only for those

intentional actions, performed voluntarily, for which no excuse or justification is accepted. Thus, blame, is a perceiver's social judgment that would be disputed by the actor". In that sense, it seems that responsibility could be more cognitively tainted, whereas blame could be a more emotional judgment (Shaver, 1996a). Responsibility could be meant as responsibility-as-causality and blame could reflect more responsibility-as-culpability (Harvey & Rule, 1978).

In this research, a similar stance is taken through the distinction between moral and legal responsibility, whereby the latter is considered to relate more to responsibility and the former to blame; such a distinction was also previously suggested by other studies (Fincham & Shultz, 1981; Shultz et al., 1981). This differentiation is justified by the Fincham & Jaspars (1980) proposition that legal and moral responsibility "are not different meanings of the general concept of responsibility" but should be considered more as "different forms of answerability or accountability regarding to whom one is responsible". Moral responsibility judgments do not necessitate the explicit consideration of relevant conditions and motives for which one holds someone responsible, whereas legal judgments do. The research supporting this distinction will now be discussed in further details.

5.2. Moral and legal responsibility

Attribution of responsibility researchers (Hamilton, 1980; Lloyd-Bostock, 1979; Shultz & Schleifer, 1983) that included case law in their analysis of attribution processes demonstrated that legal culpability - which stems from liability responsibility⁴⁹-, and moral responsibility are comparable, but non-identical concepts. The first is associated to legal judgments and the second is related to ordinary reasoning. An examination of the literature focusing on the dimensions that characterize these two concepts explains their underlying differences.

⁴⁹ Legal liability responsibility is the legal accountability ascribed to a person who is considered to possess capacity responsibility. When a person is held legally accountable in Swiss law, the culpability of the person is presumed and its extent (negligence, intention, or premeditation) must be determined.

5.2.1. Legal culpability in the framework of Swiss criminal law

When talking about liability responsibility in Swiss criminal law, legal experts use the notion of legal culpability, because, a person will only be considered liable to a penal sanction if he/she acted in a culpable way. This depends on whether the person was in a state of responsibility at the moment of his/her actions that is, possessed the faculty to appreciate the illegal nature of these acts (consciousness) and to take a decision based on this appreciation (minimal degree of voluntariness, in the sense of self-motivated capacity of action). Thus, in Swiss law, the notion of responsibility, as such, relates to what Hart termed “capacity responsibility” (Hart, 1988)⁵⁰. The notions of irresponsibility and partial irresponsibility will be used if a person did not possess fully or partially the faculties necessary to be considered as being in a state of responsibility. Legal culpability, in legal theories, can be attributed to a person if it is possible to demonstrate that he/she acted purposely, knowingly, recklessly or negligently. Legal philosophers, such as Hart (1988), contend, for example, that responsibility before the law, that is, for example, liability for punishment, can only be determined if certain mental or psychological criteria (i.e. a guilty mind, normal capacities to conform to the requirement of law and morals) are met. Once capacity responsibility is determined, one should examine the offense and decide whether it was intentional or negligent. Different criteria need to be considered to decide whether an action amounts to intentionality, negligence or is simply not culpable. Table I (p. 54) summarises these different possibilities.

Negligence is attributed if one can conclude to a violation of the actor’s duty of precaution which is culpable (art. 12, al.3, Swiss Penal Code CP). The existence of an element of culpability is determined if the agent acted without taking all necessary precautions, even though he could have acted otherwise. If necessary precautions were not taken, but no element points towards the fact that the agent could have acted in another manner, then one can conclude that the actor’s violation of the duty of precaution was not culpable. In other words, negligence will be ascribed if the agent is found to have not taken all reasonable precautions to avoid the negative outcome, when such measures

⁵⁰ See note 47.

could have been taken. Let us add that the extent of reasonable precautions is measured against the conduct of a reasonable person in an identical situation. Two forms of negligence exist in the Swiss legal doctrine: conscious and unconscious negligence. Conscious negligence means that the agent is aware of the possibility that his behaviour poses risks for others and may produce a harmful outcome, but underestimates this possibility and thinks he can avoid such an outcome. On the other hand, unconscious negligence characterises a situation in which an agent does not consider the possibility that his behaviour is attached to certain potentials risks of harming others. Let us add that both these forms of negligence are attached to similar sentences and involve the same degree of culpability. They, thus, do not differ in terms of the seriousness of the offense they represent.

Intentionality can be attributed to an agent who commits a crime or an offense with consciousness and voluntariness (art. 12, al. 2, Swiss Penal Code CP). Three forms of intentionality can be highlighted: *Dessein*, *Dol simple* and *Dol éventuel*. *Dessein* refers to pure intent to attain a harmful objective, such as when somebody points a gun to the head of another person and shoots. This form of intention can be related to deliberate and purposeful action or direct intention. *Dol simple* refers to the situation in which a person purposefully commits an action which is strongly associated to the occurrence of harmful consequences. These harmful outcomes are not an objective of the person's actions (he/she does not desire their occurrence), but he/ she considers them as a collateral damage which is inevitable. This can happen when one puts a bomb under a car in order to kill its driver and one does not care whether other people (who are not the object of the intention to kill) may also be in the car when the bomb detonates. We can relate this category to acting knowingly or to the concept of oblique intention. *Dol éventuel* refers to reckless conduct and means that an agent who is behaving in an unlawful manner in order to attain a certain objective knows that he is committing an offense and accepts this if it occurs. In other words, he/she agrees to act anyway even though he/she knows that he/she may commit an offense in the process. This rather convoluted form of intentionality is conceptually difficult to demarcate from conscious negligence. Consequently, the complex distinction between the two notions has been the object of many debates among legal scholars (Killias, Kuhn, Dongois & Aebi, 2008). As we will discuss the problematic

issue of drawing a fine line between recklessness and conscious negligence in more details in chapter III concerning the second study carried out for this research, we will not go into further details at this stage. Let us only keep in mind that we will hereafter refer to the concept of *Dol éventuel* as recklessness.

Table I: the different levels of legal culpability and the criteria to decide whether an action is culpable

Culpable actions	Direct intention (<i>Dessein</i>)	}	Intention
	Oblique intention (<i>Dol simple</i>)		
	Recklessness (<i>Dol éventuel</i>)		
Culpable actions	Unconscious negligence (<i>Négligence inconsciente</i>)	}	Negligence
	Conscious negligence (<i>Négligence consciente</i>)		
Non-culpable actions	Action which constitutes a non-culpable violation of the duty of precaution (<i>Acte commis sans imprévoyance coupable</i>)	}	No legal culpability

N.B.: the different concepts that distinguish culpable actions from non-culpable actions are translated into English for readers who are more familiar with concepts used in common law. The original expressions used in Swiss Criminal Law and formulated in French are in italics.

5.2.2. Moral responsibility vs. legal responsibility

Harvey & Rule's study (1978) was the first to demonstrate that moral responsibility or blame was distinct from responsibility judgments. However, they tended, with regard to certain measures, to assimilate responsibility to causality, although these notions are not equivalent (Shaver, 1985). Alicke (2000) differentiates blame from responsibility. He specifically relates moral responsibility to blame and defines blame as a typically psychological concept and an aspect of everyday evaluation that allows the identification of behaviour as being socially unacceptable or immoral. Criminal or legal responsibility, for Alicke (2000), could be more related to rational criteria that are specified by case law and moral philosophy. For example, when a driver collides into another car due to his negligence, he may not be liable to punishment for this act, but will nevertheless be

blamed because of his failure to exercise due caution (Pepitone, 1976). Hart & Honore (1985) also make a clear distinction between legal and moral responsibility in that very different consequences are attached to them. Legal responsibility involves a liability under legal rules to be blamed, punished or be made to compensate for the harm done. This means that, not only does it follow the moral norms of society which dictate that a given action incurs a certain liability, but it has to also take into account the more general consequences for society that are related to a legal responsibility judgment (i.e. imprisonment, community service orders). Thus, not all harmful actions that are the object of a moral censure and outrage lead to a legal liability decision; some will only be the object of a moral responsibility judgment. This is the case, for example, for mentally disordered or very young children who cannot be held legally responsible even though their criminal actions are considered morally blameworthy. In everyday thinking, when people say that someone is responsible, they mean generally that this person is morally blameworthy. However, this does not necessarily imply that this person is liable to punishment. It is only when the statement “this person is responsible” is related to capacity responsibility, as demonstrated above, or to role-responsibility (i.e. a military commander is responsible of his men and is liable to punishment if his men commit mass violations under his supervision), that one can infer liability to punishment from this assertion.

Moral responsibility in the case of harm doing can be construed in terms of a moral evaluation and an act of blameworthiness (Bentham, 1789/1923; Hart & Honoré, 1985). This evaluation involves non-legal rules for attributing responsibility (Lloyd-Bostock, 1979). In that sense, Hart (1988) gives a very comprehensive definition of moral responsibility:

“to say that a person is morally responsible for something he has done or for some harmful outcome of his own or others’ conduct, is to say that he is morally blameworthy, or morally obliged to make amends for his harm, so far as this depends on certain conditions: these conditions related to the character or extent of a man’s control over his

own conduct, or to the causal or other connections between his action and harmful occurrences, or to his relationship with the person who actually did the harm”.(pp.225)

In psychological terms, blame or moral responsibility implies understanding how people assess, blame and try to control other people's behaviours. Answerability to others compels people to explain and justify their behaviours when confronted to the judgment and blaming of external observers (Semin & Manstead, 1983; Tetlock, 1983, 1992). It involves a social process guided by the moral norms prevailing in a given society (Shaver, 1985). Blame necessitates a shared system of morality, whereby people judge of the good or bad nature of behaviour by comparing it to normatively accepted moral principles (Ferguson & Rule, 1983; Kohlberg, 1969; Tedeschi & Nesler, 1993). The degree to which a behaviour can be judged as bad depends thus on the cultural and social context in which it takes place, as well as the judging individual's own moral beliefs (Shaver, 1996a). Blame can be attributed to negatively perceived behaviours committed in everyday life, such as being egocentric, impolite or not having consideration for others. In that sense, these judgments are social acts that allow a person to evaluate a person who commits a social transgression. These appraisals do not only take into consideration related elements like causality and intention, but also the emotional and motivational consequences resulting from these judgments. In that way, Mantler et al. (2003) suggest that blame attribution could be more strongly related to social attitudes and emotional responses of the perceiver than attribution of responsibility would be. Perceivers' normative expectations and emotions have been shown to greatly influence moral responsibility and blame attributions (Alicke, 2000; Schlenker et al., 1994).

Alicke's culpable control model, conferring a central role to normative expectations and emotional reactions, has even sought to understand better how these reactions contribute to mitigate or accentuate blame ascriptions. This also involves taking into account elements of personal control. Thus, judgments of whether the actions judged were purposeful or accidental, whether the outcomes of the action were desired or anticipated and whether the actor was a sufficient causal factor of those events are taken into consideration in this model. According to this theoretical perspective, perceivers' spontaneous affective and normative evaluations can affect blame ascriptions either

directly, or indirectly, by affecting the perception of these different elements of personal control, which will then determine blame ascriptions. Spontaneous evaluation can influence blame ascription directly, for example, if a person reacts negatively (i.e. distress, revolt) to the harmful consequences of a person's actions and, consequently, ascribes blame to this person, without first considering this person's intentions or foresight. Indirect influences of such evaluations on blame ascriptions can also occur. For example, spontaneous evaluations can affect a person's perception of control, which in turn, have an effect on the consequent blame attribution. This can happen when one misperceives the control a car driver had over the occurrence of the accident he caused and one uses this incorrect assumption to attribute more blame to the driver. These spontaneous affective evaluations may, according to Alicke (2000) contribute to the tendency of people to downplay mitigating circumstances in order to validate blame. Let us add finally that the tendency for spontaneous evaluations to influence blame ascriptions depends on whether the perception of control is ambiguous (unclear possibilities to foresee risks) or not (clear possibilities to foresee risks), ambiguity being a facilitating factor for these evaluations. Thus, as this model suggests, a perceivers' beliefs and values are central in ascertaining blame and control when confronted to a given event.

Given the aforementioned posited influence of factors such as beliefs, values, attitudes, norms and emotions on blame attributions⁵¹, these factors should be considered in this discussion. Relevant research focusing on the role of these different factors concerning responsibility judgments⁵² will be now be reviewed.

⁵¹ Moral responsibility attributions

⁵² The expression "responsibility judgments" refers to moral responsibility or blame and not legal responsibility. However, since research has often used the term "responsibility" to refer to moral responsibility, we chose in this section to use a more general term of "responsibility judgments".

5.3. Responsibility judgments: the role of attitudinal, normative and emotional factors

5.3.1. Attitudinal factors: punishment-related attitudes and internal control beliefs

Responsibility can be attributed in different degrees and different forms depending on different attitudinal factors. Studies mentioned above concerning ordinary conceptualizations of insanity pointed towards this influence (i.e. Louden & Skeem, 2007; Roberts et al., 1987; Roberts & Golding, 1991), but this observation has also been made by various psychological studies on responsibility and blame attributions (Lloyd-Bostock, 1979; Alicke, 2000; Mantler et al., 2003). Attitudes that have been the most clearly related to blame and responsibility judgments are those concerning punishment or punitive aims and the locus of control or internal control beliefs.

Punishment-related attitudes

Punishment-related attitudes are part of a more general category of justice attitudes that have been studied in psychology. Even though this discussion will focus on punitive perspectives that are classically related to retributive and utilitarian justice, it is useful to briefly define the different forms of justice determining social regulation processes that have been highlighted by psychological research. Justice attitudes have been generally studied with relation to four perspectives: procedural justice, distributive justice, retributive justice and utilitarian justice.

Distributive justice concerns the principles that are generally considered by people when they make fairness judgments concerning a given outcome (Adams, 1965; Walster, Walster & Berscheid, 1978). This perspective, also known as equity theory, was originally used to explain how people in the organizational context perceive their pay and promotions. For example, when an employee receives his salary, he will tend to compare it to the salary obtained by other fellow employees whom he judges made similar contributions to the company. If he concludes that rewards have been distributed unfairly, feelings of psychological distress will motivate him to act in order to restore equity.

However, this assessment of the balance between awards and contributions is not unique to the work setting and has been highlighted in relationships, whether romantic or based on friendship (Berscheid & Reis, 1998).

Procedural justice concerns the fact that people, when confronted with a decision-making process, will be motivated to evaluate the fairness of the procedures, which led to those decisions (Thibault & Walker, 1975). These types of justice evaluations have been demonstrated in various settings (Lind & Tyler, 1988; Tyler & Lind, 1992). Procedural justice judgments have a strong influence on the manner in which people judge authorities, institutions or regulation processes. This form of justice is important to evaluate when determining whether people are likely to comply with an authority or with legal requirements, since unfair procedures tend to undermine the legitimacy afforded to decisions or rules and weaken compliance.

Retributive and utilitarian justice perspectives concern the punitive dimension of justice. Retributive justice evaluations are made when people are motivated to sanction a rule-breaking behaviour, whereas utilitarian justice concerns guide the need to deter an offender and others from committing crimes, as well as the need to protect oneself from further aggression.

Punishment has been classically demonstrated to have two main functions or aims that are retribution and utilitarianism (Bentham, 1843/1962; Carlsmith & Darley, 2008; Hogarth, 1971; Kant, 1790; McFatter, 1982; Vidmar & Miller, 1980). Retribution aims at the reaffirmation of moral and legal principles that are prevalent in a given society and the public denunciation of the criminal act as a violation of social order. Thus, retribution implies that perpetrators of wrongful acts should be punished in proportion to the seriousness of their actions. Utilitarianism aims to prevent the offender from further offending (special deterrence, rehabilitation, incapacitation), but also to deter other members of the community from perpetrating similar offenses (general deterrence). Utilitarian punishment has a focus on the future and the positive consequences that sanctions can have in the long-term perspective.

Several studies (Carlsmith, 2006; Carlsmith & Darley, 2008; Carlsmith, Darley & Robinson, 2002; Oswald, Hupfeld, Klug & Gabriel, 2002) have examined the role of

punishment goals in people's attitudes about punishment and sentencing decisions. Moreover, these punishment goals have also been considered in terms of individual differences, as well as their relationship with responsibility attributions. Some studies aimed indeed at gaining a better understanding of the factors that underlie a person's preference for one punishment goal more than another (Carroll, Perkowitz, Lurigio & Weaver, 1987), whereas other studies have focused on the effect of beliefs concerning punitive aims on the attribution of responsibility (Graham, Weiner & Zucker, 1997).

Since punishment goals are a central element to consider when examining responsibility judgments, we will briefly discuss relevant research findings on ordinary reasoning about punishment and the linkages that have been highlighted with blame and responsibility attributions.

Punitive reactions are often the result of subjective feelings that are influenced by prevailing socialization processes and cultural norms of a given society. Thus, such factors as ideological beliefs and other beliefs can affect people's punishment-related beliefs. For example, Carroll et al.'s (1987) research findings demonstrate that retribution-related beliefs tend more to be expressed by people who believe in personal causality, who present low levels of moral development, who believe in a just world and who do not adhere to welfare beliefs. Thus, beliefs concerning personal causality (related to internal-focused locus of control beliefs) are more related to retributive perspectives than rehabilitation-orientations. Punishment attitudes have also been related to authoritarian attitudes and values (Duckitt, 2009). Right-wing authoritarianism (RWA) and Social-Dominance orientation (SDO), according to such a perspective, are two social or ideological dimensions that could influence punishment attitudes. Indeed, people who show high scores in RWA afford great value to collective security factors such as order, stability, harmony, cohesion and control. They could thus be more likely to want to maintain security through punishment and control of behaviours that could threaten or violate social order. High scorers in SDO are committed to such values as power, dominance, hierarchy and inequality. Thus, punishment, for them, could contribute to the maintenance of power and dominance hierarchies that they value.

However, even though individual differences in punitive beliefs may exist and be related to people's beliefs and values, recent research has consistently demonstrated the prominent position that retribution seems to hold in people's punishment decision-making and reasoning. For example, Carlsmith (2006), in a study that sought to understand what information people rely on when they assign punishment, showed that people predominantly look more for information that is related to retributive aims compared to incapacitation or deterrence-oriented information. Darley, Carlsmith & Robinson (2000) examined the motives behind people's punishment decisions and found that motives related to retribution (moral severity of an offense) were more likely to be taken into account in peoples' judgments than factors related to incapacitation (recidivism likelihood). Moreover, such reliance on retributive factors is so ingrained in people's minds that it is even an influence when explicit instructions not to rely on a retribution perspective are provided. As Carlsmith & Darley (2008) summarized this finding, "people spontaneously punish in a manner that is highly consistent with a theory of retributive justice and not in a manner consistent with the utilitarian goals of incapacitation". Nevertheless, preferences for retribution may be more related to victims' concerns than to the society's needs (Oswald, Hupfeld, Klug & Gabriel, 2002). Finally, it seems that people associate the degree of blameworthiness of acts to the level of punishment assigned, whereby the more blameworthy the act, the higher the severity of the sanction will be (Carlsmith, Darley & Robinson, 2002). Ordinary reasoning in terms of punishment holds a hierarchical view of offenses and matches them to corresponding levels of blameworthiness and penalties. Thus, moral proportionality seems to characterize ordinary people's assignment of punishment (Finkel, Maloney, Valbuena & Groscup, 1995).

Many scholars, as much in philosophy (Hart, 1988) as in psychology (Shaw & Sulzer, 1964), suggest that punitive reactions depend on the degree of intentionality and responsibility that is attributed to an agent. Research has often demonstrated a relationship between punitive reactions and responsibility attributions (Feather, 1998, Shaver, 1985; Shaw & Reitan, 1969; Weiner, 1995b). However, there is some debate as to whether punitive reactions are directly related to these attributions or are the result of a

direct relationship between the degree of harm and these reactions, which is mediated by attributed responsibility (Oswald, Orth, Aeberhard & Schneider, 2005).

Graham et al. (1997) show that the perceiver's beliefs concerning punitive aims could influence the attribution of responsibility. Their findings suggest that retributive aims are strongly related to moral responsibility or blame and moral emotions of anger and sympathy, but that rehabilitation aims are more related to sympathy and beliefs about the stability of the cause. Moreover, punishment severity is, according to their findings, best predicted by blame, high support for deterrence aims, low support for rehabilitation aims and low feelings of sympathy. Thus, support for retributive aims for punishment and blame seem to be more related to harsh sentencing, whereas agreeing with rehabilitation goals for punishment and feelings of sympathy are predictive of a more lenient punitive response. These findings support Feinberg's suggestion that beliefs of moral culpability and blameworthiness determine retributive punitive responses (Feinberg, 1970).

In support of the linkage between moral responsibility and retribution perspectives, let us also mention Feather's (1996) findings that deservingness (degree to which a penalty is seen as deserved) is strongly related to perceived responsibility. In that same vein, let us also mention Carlsmith, Darley & Robinson's (2002) findings that moral outrage may be a determining factor of the linkage between retributive motives and the level of punishment assigned.

Thus, given the moral foundations of retributive aims for punishment, blame ascriptions are more likely to be precursors to such punitive perspectives than responsibility attributions. This is all the more possible since some researchers (Averill, 1983; Weiner, 1993) suggest a strong influence of emotions on the relationship between blame and punitive reactions. Anger could stimulate rejection or punitive behaviours from the part of the perceiver, whereas sympathy could produce more pro-social behaviours such as helping others or diminish the occurrence of antisocial behaviours such as negative evaluations or sanctions (Graham, et al., 1997).

In sum, retributive philosophies and their underlying moral outrage orientations seem to guide people's spontaneous sentencing preferences. Thus, ordinary reasoning about punishment could be more related to an emotional and moral dimension of responsibility

such as blame than to responsibility in the legal and rational sense of it. Moreover, preference for a retributive perspective seems, not only to influence blame ascriptions, but is also related to beliefs in personal causal explanations, as demonstrated in Carroll et al's research findings (1987). Thus, such beliefs, which are related to internal control beliefs, should be also considered in this discussion.

Internal control beliefs

There is a widespread agreement with the fact that people need to know that they can control their environment. This reflects what some researchers (Dubois, 1987) have termed "the illusion of control". People's causal attributions tend to rely on internal explanations; this type of bias is related to the fundamental attribution error (Ross, 1977). Yet, this tendency seems to be more accentuated for hetero-attribution (causal explanation for other people's behaviours), than for auto-attribution (causal explanations for one's own behaviours) (Jones & Nisbett, 1972). Thus, when people observe other people's actions, the attributions they make depend more on these people's dispositions than on the situation in which their actions occur.

According to Beauvois (1984), however, this tendency for internal explanations may be less a bias and more the reflection of an internality norm. Such a norm is considered in this perspective to be acquired through socialization and to be more characteristic of privileged social groups. Proponents of the internality norm (Beauvois, 1984, 1994; Beauvois & Dubois, 1988; Dubois, 1994) suggest that internal causal explanations are more socially valued in people's evaluations of events. As Dubois (1997, pp. 28) explains, "Internality enters into play as a normative criterion in causal explanations of psychological events".

Research not only focused on the manner in which people explain others' people's behaviours, but also investigated the manner in which people tend to explain events that happen to them. This perspective of research concerns the locus of control (LOC). LOC beliefs affect people's causal attributions concerning their behaviour (Beauvois, 1984; Deschamps, 1997). People who perceive their behaviour to be out of their control will thus explain their actions by invoking external factors, whereas people who favour

internal control will consider their actions to be the result of their own doing (Rotter, 1966). Measuring LOC beliefs aims thus at classifying respondents in terms of their style of perceived (internal or external) control.

Since the tendency to favour internal or external explanations is considered as a disposition reflecting a belief in control, several measures have been developed to assess it.

Rotter's behaviour scale (1966), the I-E scale, is one of the most commonly used measures of LOC for situations of reinforcement. This measure is used to identify the extent to which an individual can perceive himself as in control of the occurrence of a reinforcement (internal) or can consider that reinforcements escape his control and is the result of external factors such as luck, powerful others or fate. LOC has often been used in learning situations in which reinforcement is central. This is due to the theory suggested by Rotter that reinforcing a given behaviour can only contribute to a learning process if the learner whose actions are rewarded perceives the causal link between his actions and this reward. He must consider that this reinforcement is dependent on his behaviour and thus, believe that it is under his internal control. LOC was considered an important belief to examine in learning situations, since it was a good indicator of the commitment of people to a learning process (Huteau, 1995). Internal people are characterized by traits such as perseverance, self-confidence, independence and are more resistant to failure, whereas external people are, to the contrary, more depend and are more likely to give up easily. Rotter's (1966) LOC scale has a general and one-dimensional format (participants' scores for each item are added in order to yield a global score of internality or externality).

However, it has been suggested that multidimensional scales may be more appropriate to measure LOC beliefs, because control is considered to entail several dimensions (Levenson, 1974). Such measures may be more suitable to relate certain specific concepts to specific dimensions of control beliefs. For example, studies using multidimensional measures have demonstrated that internal people may be more susceptible to belong to high status groups (Wenzel, 1993) or are more likely to be Protestants rather than Catholics (Geist & Bangham, 1980), compared to external people.

The Levenson scale (1974) entails a multidimensional structure. It is a revised version of Rotter's original scale and includes three independent scales: Internality (I), Powerful others (P) and Chance (C). The decision to include two external loci of control, namely P and C, was justified by the theory that people may react differently whether they situate external control in others or in fate or luck. Moreover, this scale had a Likert format, unlike Rotter's scale (1966). The Levenson IPC scale has been demonstrated to be more reliable than the Rotter's scale (Rossier, Rigozzi & Berthoud, 2002) and has been used successfully in relationship to many aspects of social life such as alcoholism, socio-political involvement and imprisonment (Levenson, 1981). Moreover, the Levenson IPC scale is frequently used by research and good validity has been attributed to it (Presson, Clark & Benassi, 1997). It will be used, thus, in this research.

As for the link between responsibility attributions and the locus of control orientation, let us start by pointing out to the well-established finding that responsibility ascriptions are necessarily dependent on the observation of an internal or personal cause (Heider, 1958; Weiner, 1995a; Schlenker et al., 1994). It is normally accepted that people can only be held responsible for those actions and effects one can expect them to control. Moreover, various studies (Phares, Wilson & Kliver, 1971; Phares & Wilson, 1972; Sosis, 1974) have observed an influence of the tendency to favour internal or external explanations for behaviour (locus of control beliefs) on responsibility judgments. Thus, people who believe that each person is responsible for his/her own deeds, that is, people who favour internal explanations, are more likely to find a person whose actions caused a harmful outcome more responsible, compared to external-oriented people. Moreover, Sosis (1974) also observed that internal people seem to be also more likely to attribute foreseeability to the agent than external people are. Internals are thus more likely to think that an accident is the result of negligence, whereas externals will tend more to consider such an event as a hazard of life. He also suggests that internals are susceptible to be less lenient than external would be, and thus impose higher sanctions to an agent than externals would. However, all these studies used Rotter's one-dimensional measure of locus of control. We will thus examine in this research, whether similar results can be found when using the Levenson IPC scale.

5.3.2. Normative factors: Social norms and normative expectations

Responsibility and blame are an essential part of interpersonal interactions as they help maintain social order by detecting and discouraging harmful or non-normative behaviour (Fauconnet, 1920). Normative behaviours are thus promoted because of their social utility. Violating a social norm amounts to risking a social sanction, that is, being held accountable, which is a process of naturalisation, according to Beauvois (1984). Social norms concerning responsibility range from very general to very specific norms. Some rules can pertain to anyone (i.e. homicide law), whereas other can be more contextual and only concern particular characteristics of situations (i.e. past acts of a perpetrator, threats or coercion from a third person). Somewhere between these two extremes, one finds norms that are related to an individual's social position, such as the norms that concern the responsibility a parent has over the behaviour of his child. Thus, normative expectations concerning social roles, socially desirable conduct or social identity are an influential element in holding people accountable for their actions (Hamilton & Sanders, 1981; Schlenker, Britt, Pennington, Murphy & Doherty, 1994). Responsibility judgments result from an assessment of what the actor did and compare it with what the actor was supposed to do or should have done.

Responsibility has also often been associated with the idea of obligation or duty, which suggests a strong relation between social positions or roles and responsibility (Fincham & Jaspars, 1980). Responsibility judgments, as Hamilton (1978) suggests, are thus determined by the actor's social role, as well as by the expectations the people judging his acts have regarding his role. Social expectations encompass, thus, as much general norms that can be applied to everyone, as norms related to a person's social position. Responsibility, as Hamilton (1978, pp.320) sums it up, can involve as much "the reliability of role performance" as the "enactment of social obligations". Even though both these forms of responsibility imply responses to others' expectations for one's actions, they differ in terms of their social consequences.

On the one hand, "reliability of role performance" refers to such expressions as "responsible citizen" and constitutes an informal assessment of correspondence with

community standards of morality. Such factors as the victim's or the perpetrator's personality (Alicke, 1994; Alicke & Davies, 1989), social attractiveness (Alicke, 1994; Kaplan & Kemmerick, 1974; Landy & Aronson, 1969; Myers, 1980) or status (Shaw & Skolnick, 1996) can influence people's responsibility ascriptions. For example, an agent who causes an accident is perceived as less responsible for his actions, if these were motivated by a socially desirable objective, than if these were the result of a socially undesirable motive (Alicke, 1992). A person will also be perceived as more blameworthy if he is described as displaying behaviours that indicate a negative disposition than if his acts reflect a positive disposition (Alicke, 1994). Actors who display anti-normative or socially undesirable behaviours, which lead to negative outcomes, will be held more responsible than those who carry out normative and more socially desirable actions (Devos-Comby & Devos, 2001). In that sense, people hold certain schemas of events in their minds that can influence their normative expectations about a given conduct. Such social norms have been defined as "a set of behaviours perceived by a collective entity as desirable" and can be related to the notion of injunctive norms highlighted by Cialdini, Reno & Kallgren, (1990).

On the other hand, "social obligations" are more formal and imply generally a certain accountability towards others' for one's actions that is related to one's social role. They encompass the obligations parents have concerning the supervision of their children or the responsibility superiors have over their subordinates in authority-oriented relationship. These obligations can concern the avoidance of harmful acts, but also harmful omissions (Haidt & Baron, 1996). This dimension of responsibility is related to what Hart (1988) calls role responsibility. Information about social roles is central to responsibility decisions; it can affect the way other information such as the actor's mental or past behaviours is processed and interpreted by perceivers (Hamilton & Sanders, 1981). However, social-obligation forms of responsibility (i.e. duty of care of mother towards it child, the duty of care of a driver towards the other drivers) can sometimes clash with normative principles of criminal responsibility (Heitzman, 2007; Kelman & Lawrence, 1972). They can diminish the responsibility attributed to an agent or aggravate the responsibility attributed if the perceiver considers that the breach of law is serious and that, in addition, the duties related to other responsibilities have been violated.

Since normative factors, such as social expectations concerning human actions, are central to responsibility judgments, consideration of their influence is warranted in a research such as the one carried out here. Indeed, driving behaviour being an integral part of the everyday life of people, whether they drive or they are observers of driving habits (pedestrians, users of public transport), normative expectations or social norms related to such conducts are bound to be prevalent and hold a prominent position in people's reasoning about responsibility for fatal road traffic offenses.

5.3.3. Emotional factors: Negative emotions of anger and injustice

Blame is not only characterized by the importance of normative factors, but also by motivational biases such as those related to emotional reactions (Alicke, 2000; Weiner, 1995b). Even though moral psychology has emphasized, for a long time, the fact that moral judgments are primarily the result of a process of reasoning and reflection (Kohlberg, 1969; Piaget, 1932/1973; Turiel, 1983), others have specifically related moral judgments to emotions such as anger. Various studies have examined how blame attributions and various degrees of intentions could affect emotional reactions of perceivers of harmful actions, such as anger (Averill, 1983; Quigley & Tedeschi, 1996; Weiner, 1986, 1996).

Weiner (1996) for example suggests that anger follows a judgment of responsibility and that it acts as a mediator between this judgment and a subsequent social response (i.e. aggressive reaction) (Weiner, 1996). Following this reasoning, he also contends that anger is the affective component of blame and that blame acts as a mediator between responsibility and action. Blame in this sense is a product of the combination of responsibility and anger, which Weiner assimilates to anger for conceptual clarity.

However, Quigley & Tedeschi's (1996) findings do not seem to support the hypothesis of that blame and anger are merged into one single evaluation. They suggest rather that blame and anger may each relate to different affective constructs.

Emotions, such as anger, are not only affected by blame attribution, but have also been shown to influence those same attributions (Quigley & Tedeschi, 1996). This

influence is bi-directional. As for the nature of the influence of emotions on blame attributions, Feigenson & Park (2006) highlighted three main forms that have been consistently found in research.

Emotions can have an effect on people's way of processing information, for example through a schema-driven processing. This can be observed when emotions influence jurors to use stereotypes, which will influence in turn their responsibility attributions by making them correspond to those stereotypes (Bodenhausen, Sheppard & Kramer, 1994).

Emotions can also bias a responsibility ascription by making it congruent with the valence of the mood in which the perceiver is. Thus, a juror who is in a negative mood may, when deciding of a defendant's responsibility, will tend to perceive and recall more negative details about this defendant and, thus, use biased information to make his decision.

Finally, emotions can serve as informational cues when ascribing responsibility. For example, people who experience anger feelings will tend to blame more others for harmful actions. This occurs because their anger experience (cognitive feeling of anger that is related to the disapproval of the blameworthy action) will yield a causal search that emphasizes more dispositional factors than situation factors, which consequently produces blame ascriptions (Keltner, Ellsworth & Edwards, 1993). Anger can thus increase the likelihood that the perceiver will overlook mitigating information when attributing blame.

Some studies (Averill, 1983; Mantler et al., 2003; Rule & Ferguson, 1984; Weiner, 1995a) have demonstrated that blame could be more related to emotional reactions than responsibility. However, this does not mean that responsibility, in the sense of legal responsibility for this discussion, cannot be influenced by emotions. Attempts have been made to examine the influence of emotions on legal responsibility (see for a review Feigenson & Park, 2006). However, these studies were mainly carried out on mock jury samples. Thus, it is quite probable that they concern more the impact of emotions on blame ascriptions than on proper legal responsibility judgments. This does not deny that emotions cannot influence legal responsibility judgments, but only that this influence is probably not as strong as the one observed for blame.

Efforts to avoid or contain the influence of emotions are made in the legal realm, because of the necessity for legal decision making to be as rational and dispassionate as possible (Feigenson, 1997). Emotional reactions can occur in response to factors, such as the actor's intentions, motives, knowledge, behaviours and their outcomes, but also in response to factors, such as the a person's reputation, social position, race or gender (Alicke, 1994, 2000). Thus, emotions triggered by extra-legal factors, such as the defendant's race or gender or the information propagated by the media, should be kept away from the courts because they can swing decisions in ways that are not legally justifiable. However, other emotions such as those related to the defendant's character or values could be considered in legal settings as they can benefit the determination of responsibility (Feigenson & Park, 2006).

Let us add that various studies show that blame and intention attributions seem also to affect affective reactions related to justice judgments, such as perceived injustice (Folger & Cropazano, 2001; Mikula, 1993, 2003; Montada, 1991). Blaming, according to Mikula's study (2003), acts as a mediator between judgments of causality, control, intention, lack of justification and perceived injustice. Injustice perceptions are thus an important dimension to take into account when considering emotional reactions and attributions. This inclusion of injustice feelings could be even more necessary, given the strong influence of feelings of injustice on consequent anger reactions (Goldberg, Lerner & Tetlock, 1999).

Notwithstanding the exact role of emotions with regard to responsibility judgments, it is quite clear from the studies reviewed above that affective experiences can influence moral responsibility ascriptions. Thus, emotional reactions will be considered in terms of their potential effects on blame attributions.

6. Summary and research goals

This discussion has until now revealed the legal backdrop against which the subject of this research, namely, the attribution of responsibility for fatal road traffic offenses, is set. The legal fervour that is observed throughout European countries seems, to a certain extent, to have also contaminated the Swiss penal and political realm. Several examples of criminal policies and developments of the criminal law can attest to this observation. A heightened concern for risk and its control, as well as a new sensitivity towards the plight of victims, has led to considerable legal changes. Such transformations in the law tend globally to a harsher stance in sentencing practices and penal sanctions.

Sentencing practices have seen considerable changes that denote a movement of back-and-forth in terms of leniency. In the last decade, there has been a move towards more lenient and flexible practices (the possibility to replace short prison sentences by day fines and community service orders). However, this trend has been recently offset by political demands for a harsher and more punitive stance implying the re-establishment of the possibility of imposing short custodial sentences and the suppression of suspended day fines and community service orders.

Another recent development that reflects this harsher stance concerns the decision to adjust the provisions pertaining to sanctions for various offenses that are included in the special part of the Swiss Penal Code. Criminal policy pertaining to particular offenses has also been the subject of some considerable development, as demonstrated by the changes in the penal legislation concerning the internment for life of dangerous offenders and the outcome of the popular vote on the expulsion of foreign offenders.

Finally, an intensification of the criminalisation and penalisation of road traffic offenses is clearly observed in Switzerland. More specifically, the punitive stance towards dangerous drivers is a particularly pertinent example and provides a compelling argument for the examination of ordinary reasoning concerning responsibility for such offenders.

Gaining a better understanding of the nature and processes underlying ordinary reasoning of responsibility for fatal road traffic offenses is all the more important since

driving is an everyday life activity which is relevant to most people and is thus, the object of various social representations and attitudes. This raises the issue of whether people may be more concerned about offenses that could affect them in their daily life and, thus be more in favour of diminishing the probability of such harmful behaviours to occur through their heightened penalization.

This issue is even more central with regard to Kuhn et al.'s (2004) finding that the majority of the citizens in Switzerland may have quite moderate views about sentencing. Moreover, two contrasted perspectives seem to dominate the public's perception of criminal justice and punishment philosophies, as highlighted in Languin et al.'s (2006) study. On the one hand, some support the necessity to reintegrate the offender, whose offenses are conceived more as the result of social factors than of personal dispositions. On the other hand, others are more in favour of the necessity that the offender, whose individual responsibility is emphasized in this perspective, be sanctioned proportionately to the seriousness of his offenses and, consequently, to his culpability. These findings point towards the conclusion that most citizens, either favour a redemption perspective, which emphasizes collective responsibility for an offense, or support a retributive approach, which stresses individual responsibility.

Against the backdrop of the Swiss legal context and research findings on punishment attitudes, the main assumption of this research is that responsibility for fatal road traffic offenses entails overlapping moral and legal dimensions. Since ordinary conceptions of responsibility differ on some aspects from legal meanings of responsibility, we aim to shed some light on the nature of these divergences with the idea that accountability entails two different facets, one related to moral factors and the other to legal considerations (see Gély & Sanchez-Mazas, 2006; Elcheroth, 2006). In support with previous research findings, moral responsibility is assumed to be assimilated to blame attributions, whereas legal responsibility may be more related to responsibility *per se*. Moral responsibility, compared to legal responsibility ascriptions, is thought to be more prevalent in ordinary conceptualisations of responsibility, to be more based on moral values and attitudes, as well as to be more strongly related to emotional reactions (Alicke, 2000; Mantler et al., 2003; Weiner, 1995b).

Several research findings that were discussed in the previous section point towards the conclusion that the moral dimension of responsibility attribution is particularly influenced by normative factors and social expectations, as well as motivational biases related to negative emotions, punishment-related attitudes and beliefs related to internal control. However, dimensions of legal attribution are not immune to such factors, but may be just less likely to be influenced by them, because of their susceptibility to rational criteria such as consciousness, voluntariness and intentionality. In support of these assumptions, research findings on social representations show that people can have different conceptions of a given social fact depending on their individual anchoring in attitudes, beliefs or life experiences (Doise, 1992). Thus, different representations of responsibility could exist and people may refer to one or another dimension of responsibility depending on their legal background and familiarity with legal reasoning, as well as their normative expectations, attitudes and emotions. Moreover, people may refer to one or the other dimension of responsibility depending on the saliency of the cues that are represented in the situation that they have to judge. If cues relating to rational criteria such as consciousness, voluntariness and intentionality are emphasized, judgments may rely more on the legal dimension of responsibility. Responsibility ascriptions, when rational criteria are salient, may rely less on the moral dimension, as well as factors that are related to this dimension, pertaining to emotions, values and beliefs. Moreover, the weight of emotional, attitudinal and normative factors underlying ordinary reasoning of responsibility will be compared to the influence of the rational criteria that guide legal reasoning about responsibility.

The main goal of this research is, thus, to understand better the nature and the dimensions underlying responsibility judgments attributed for a given act and their relation to ordinary reasoning and legal reasoning. The consideration of ordinary representations of responsibility and their relation to legal responsibility criteria is deemed essential in this discussion given the current context of punitive and penal fervour, which is projected by the media and the political arena, concerning acts of social deviance, such as fatal road traffic offenses. The research questions guiding this study are detailed below.

7. Research questions and general hypotheses

The framework guiding this research contends that responsibility attributions include a moral and a legal dimension that are not totally distinct from each other, but that overlap. One or the other dimension may be more prevalent in responsibility assignments depending on the nature of the cues that are salient in a given judgment context, as well as the legal background of the perceiver. Thus, when rational criteria, such as different levels of responsibility⁵³, are made salient in a situation in which responsibility has to be attributed to an agent for an offense, legal dimensions may be more sensitive to such manipulations, in particular, if the perceiver has been conditioned, through training, to take such criteria into account. However, when criteria related to social norms, such as age or justifications for acting irresponsibly, are rendered salient, moral dimensions are assumed to be more susceptible to be activated in the attribution of responsibility.

Thus, the following research questions were examined in three different studies manipulating rational factors, such as levels of responsibility (studies 1 and 2) and, normative factors, such as age and justifications for acting irresponsibly (study 3). Law students were chosen to reflect more legal reasoning, as they have had a certain exposure to legal criteria through their first-year legal training. Psychology students, on the other hand, were chosen to represent more ordinary reasoning, that is, reasoning about responsibility that would not be conditioned by sensitisation to legal criteria.

A first research question posits that overlapping dimensions related to moral and legal criteria are involved in responsibility attributions. In this perspective, the following general hypotheses will be examined. The moral dimension of responsibility is expected to be more related to blame and blame-related factors, such as emotions, values and beliefs. We also expect the moral dimension of responsibility to entail conceptions such as blameworthiness, being responsible for the death of a victim, being accountable before the justice system and publicly denouncing the agent's acts. This moral dimension should

⁵³ The expression "levels of responsibility" is understood in the Heiderian sense of it and can be assimilated to "levels of intentionality". This means that responsibility increases as one progresses in intentionality levels from careless actions or negligent actions (no intentionality), reckless actions (some intentionality is presumed), to purposeful and planned actions (intentionality is clearly presumed).

be also be more related to the feeling of negative emotions such as anger or injustice, as well as punitive beliefs related to retribution-oriented aims and internal beliefs about control. The legal dimension of responsibility, on the other hand, is expected to be more based on rational criteria such as consciousness, voluntariness and intentionality. The legal dimension is also not expected to be affected by affective evaluations, related to negative emotions or retributive punitive beliefs. These assumptions will be tested in all three studies described here.

A second research question suggests that moral responsibility concepts, such as being blameworthy, being responsible for the death of the victim, being accountable before the justice system or publicly denouncing the agent's acts should not be affected by the manipulation of rational cues pertaining to legal levels of negligence (study 1) and legal culpability (study 2). Moreover, blame-related factors, such as negative emotions, retributive punitive beliefs and internal control beliefs are not expected to be affected by such legally related manipulations either. However, these manipulations should have an influence on respondents' ratings of legal responsibility criteria that are relevant to the manipulation, as well their legal qualification of the situation.

A third research question suggests that a perceiver who has not had any exposure to legal training may have a more ordinary reasoning about responsibility and is, thus, expected to be less sensitive to rational criteria used in law to ascertain responsibility (consciousness, voluntariness and intentionality). Conversely, perceivers who have a greater experience of legal thought are expected to be more receptive to such rational criteria when they attribute legal responsibility. In terms of general hypotheses, this means that, when manipulating levels of intentionality⁵⁴ with specific legal criteria that demarcate these levels in terms of various gradations in awareness and wilful conduct, people who are not very familiar with legal reasoning are expected to be less sensitive to such shades in intentionality. They should make, thus, less or no distinctions in terms of degrees of responsibility and intentionality. To the contrary, people with such a legal background, are expected to be more perceptive to the legal criteria that demarcate

⁵⁴ See note 53

different legal levels of responsibility, and, consequently, attribute responsibility according to legal criteria of consciousness, voluntariness and intentionality.

These assumptions will be tested in the two first studies. The first study aims at manipulating two levels of negligence (conscious and unconscious negligence) the second study will consist in the manipulation of level of intentionality, that is, either intentionality will be absent (conscious negligence) or will be low (recklessness).

A *fourth general question* posits that criteria related to social norms, such as justifications for irresponsible conduct, should influence moral responsibility dimensions, but should not affect legal responsibility dimensions. In this perspective, the following general hypotheses will be examined. Higher moral responsibility should be ascribed when the reasons invoked to justify irresponsible conduct are less justifiable and frivolous, than when justifications are based on reasons linked to necessity. Acts that are justified by reasons related to necessity and that could be considered more socially desirable are expected to result in lower levels of agreement concerning blameworthiness, responsibility for the death of the victim, being accountable before the justice system or publicly denouncing the agent's acts, compared to acts that are less socially desirable. Rational responsibility criteria such as consciousness, voluntariness and intentionality will not be affected whether the justifications for irresponsible conduct are more or less socially desirable. These hypotheses will be tested in study 3.

Overall, we expect to demonstrate across the three studies that ordinary and legal reasoning about responsibility may only differ in terms of the weight conferred to rational vs. moral dimensions when confronted to a situation in which cues related to legal criteria are presented. Thus, when levels of responsibility are manipulated and thus, cues that are relevant to responsibility in legal reasoning are salient in the situation to be judged, legally relevant attributions will be more affected by such a manipulation, compared to moral dimensions of responsibility. Moreover, confronted with the manipulation of levels of responsibility, legal reasoning will confer more weight to rational criteria compared to ordinary reasoning. We expect to observe this influence in studies 1 and 2. However, when the situation respondents have to judge does not include rational cues, but includes

more normative and non-legal factors, such as age or justifications for irresponsible conduct, both ordinary and legal reasoning should show similar moral and legal responsibility ascriptions for both moral and legal dimensions. Thus, whether they are legally trained or not, respondents should show higher blame ratings for the socially desirable situation, compared to the less socially desirable condition, whereas legal responsibility dimensions should not be affected by the manipulation of social norms. In other words, ordinary and legal reasoning are not expected to differ in the importance they confer to rational criteria and moral criteria, in terms of ratings, when legal cues are not salient in the situation that is evaluated. We expect to observe this effect in study 3.

II. Study 1. Moral and legal dimensions for responsibility attributions for different levels of negligence

1. Introduction

In the last years, several fatal road traffic offenses involving motor-racing and generally excessive speeding by young male drivers have been publicly exposed and condemned by the media and political discourse. There has been a clear demand for harsher sentences and increased punitiveness for offenders responsible of “road traffic violence” and the subsequent “senseless murder” of an “innocent victim”. Political actors, and even some legal actors, have greatly contributed to this frenzy by singling out, in the media, these events as a particular and serious source of concern for the security and the well-being of all. Their discourse often insists on the vital need for harsher sentences and legal changes to elicit deep-rooted changes in mentalities and behaviours related to driving. Proponents of these sentencing and legal policies often highlight their value in terms of raising public awareness about the risks related to speeding and dangerous driving.

1.1. Predominance of convictions for negligence for fatal road-traffic offenses

Most of the time, when there is the occurrence of a fatal collision involving a motor vehicle, there is a search for responsibility and, if it is considered that the person who caused the collision took inadvertently unreasonable risks, this person can be imposed a legal punishment for having committed a serious road-traffic offense. Negligence is most often the qualification that is afforded to such conducts. However, some argue that negligent conduct should not be culpable, since unawareness of risks, even if it is objectively unreasonable, should not result in culpability (Alexander, Ferzan & Morse,

2009). When people fail to avoid a risk and that this unreasonable failure is not the result of a conscious choice, they should not be held responsible, because their actions are not culpable. However, this argument is often countered by the idea that people will be more motivated to act with reasonable care if their actions can be defined as amounting to legal negligence (Bandes, 2010; Hart, 1988). The concept of duty is important in that sense. Negligence is often the result of an erroneous awareness of the circumstances that lead to the obligation of behaving in a certain manner or to refrain from particular behaviours, which is due most of the time to a careless mistake⁵⁵. Negligence can also be the result of an inappropriate reaction or of the overestimation of one's capacities, despite an appropriate perception of the immediate circumstances.

A person's driving behaviour can constitute a road-traffic offense, if he/she is aware that he/she is violating road traffic rules, that this violation can lead to dangerous outcomes and that he/she is wilfully violating these rules by taking such risks. However, in order to consider a negligent behaviour as a penal offense that can be sanctioned, the behaviour must constitute a serious violation of road traffic rules; it must at least reflect gross negligence⁵⁶. Objective circumstances and subjective circumstances are taken into account in such an assessment. In the objective assessment, the element that is considered is the comparison of the offenders conduct with the actions that a diligent person would have produced, the notion of diligent driver being understood with regard to the respect of road-traffic rules. The subjective assessment should take into the individual characteristics of the offender. For example, for case law the offender must behave without consideration for others⁵⁷.

1.2. Levels of negligence: conscious negligence and unconscious negligence

Within the definition of negligence, Swiss criminal law also differentiates between *conscious negligence* and *unconscious negligence* (Jeanneret, 2007). *Conscious*

⁵⁵ See Art. 90 Swiss law for road-traffic offense (LCR)

⁵⁶ See Bussy & Rusconi (1996), LCR 90, ch. 2, n. 4.3 et 4.4; See Mizel (2004) n. 31 et 58.

⁵⁷ ATF 131 IV consid. 3.2.; ATF 130 IV 32 consid. 5.1; ATF 126 IV 192; ATF 123 IV 88 consid. 4a; ATF 118 IV 285;

negligence implies that the offender was aware of the seriousness of the violation of road traffic rules and of the resulting endangerment of others' lives, but fails to take reasonable precautions against the risk of harm. *Unconscious negligence* means that the offender did not think that his behaviour would create a serious danger for others. This can happen if a driver is not paying attention to the road, assesses wrongly the situation or appraises incorrectly the consequences of his behaviour. Thus, a failure to take reasonable precaution against a harmful outcome can amount to *conscious negligence* "if one did not think that the harmful outcome will occur" or can reflect *unconscious negligence* "if one does not think that the harmful outcome could occur"⁵⁸. The difference between the two definitions is thus subtle and relies on the consideration of probability of risks occurring. Let us add that both these forms of negligence are attached to similar sentences and involve the same degree of culpability. They, thus, do not differ in terms of the seriousness of the offense they represent.

Acts that reflect *conscious negligence* generally lead to a legal liability. However, the link between actions that could amount to *unconscious negligence* and legal liability is not as automatic. Not all situations in which a person commits an act without knowing that it could result in endangering other people's lives will be considered as pertaining to *unconscious negligence* and, consequently, engender a legal liability. Case law has specified the conditions under which behaviour can amount to *unconscious negligence*. Not all actions resulting from human error should be liable to penal sanctions, but only the actions that could and should have been anticipated and prevented. Thus, case law states that the lack of awareness of the endangerment risk for others must be particularly blameworthy and defines the criteria for making this blame assessment⁵⁹. Particular blameworthiness will be considered if the offender violates a duty of care that was self-evident given the specificities of the circumstances surrounding this act. For example, when it is raining, traffic is high, visibility is low and the speed is high, the driver is supposed to be more careful. He will also be considered particularly blameworthy, if he did not appraise the situation in relation to his own driving capabilities correctly. The

⁵⁸ Art. 90, ch. 2 of the Swiss law for road traffic offenses (LCR)

⁵⁹ ATF du 20 mars 2002 (cause 6S.11/2002); ATF 126 IV 192 consid. 3 ; ATF 123 IV 88 ; ATF 118 IV 285 consid. 4 ; ATF 106 IV 48

subjective seriousness of the violation of road-traffic rules should also be taken into account when judging whether an act amounts to *unconscious negligence*. For example, a professional driver, whose professional obligation encompasses to refrain from driving when he/she is tired, can be liable for *unconscious negligence* if he caused an accident due to his fatigue (Boll, 1999, note 17). This may however not be the case if an ordinary driver does not depend on such a duty obligation when he is driving. Motives can also influence the gravity of a given violation, since a person, who creates an accident, while trying to impress his/her passenger by driving daringly or because he did not clear of the snow from his windshield properly, can be considered to have acted in *unconscious negligence*⁶⁰.

In sum, to be considered particularly blameworthy, a given negligent conduct should reflect a marked indifference towards others (Mizel, 2004, note 32). The absence of scruples is, in that sense, an important factor to determine whether the conduct amounts to gross or only slight negligence. It is here noteworthy to observe that the conditions defined by case law to determine whether a given negligent action reflects *unconscious negligence* and is liable, or is considered only as slight negligence and does not involve any penal outcomes, are partly founded by subjective and morally tainted criteria (indifference, absence of scruples, blameworthy).

1.3. Risk consciousness: contrasted perspectives between current policies and the public opinion

The increased criminalization for driving offenses that lead to fatal consequences has been justified by criminal theorists (Clarkson, 2000) by the argument of situation relevance, whereby these types of offenses concern everyone, because driving is a widespread activity that anyone can identify with (Lloyd-Bostock, 1979). Legal and social policymakers often refer to automobiles as “potential weapons that can cause death and injury”. Thus, laws are passed to regulate their use and with the aim of reducing fatalities and injuries resulting from car-crashes (Cunningham, 2008). Fatal road traffic

⁶⁰ ATF (non-published) of April 6th 2006 consid. 2.2.1. (cause 6A. 16/2006).

offenses have been particularly the target of new laws because of their inherent nature of “ultimate harm” that is particularly difficult to accept for most human beings.

In contrast to this rather alarmist discourse, citizen’s perceptions of driving offenses in general reflect more a vision that most violations of road-traffic offenses are not dangerous and do not constitute criminal conduct (Federal Office of Statistics, 2008⁶¹). For example, only 15% of respondents seem to think that excess speeding is a criminal behaviour and 47% of respondents consider such behaviour, at the most, careless.

This last result begs the question of whether people make the difference between different levels of negligence. This is all the more important given that negligence is liable to penal sanctions. These penal sanctions can be particularly severe if negligence results in a fatal outcome, since people who behave in a manner which corresponds to the requirement of *negligence* and which results in the death of another person are currently liable to up to 3 years of imprisonment⁶². Let us also not forget that, as discussed earlier, such liability may even be raised in the future, if the newest proposal to revise the special part of the Penal Code is adopted⁶³.

As discussed before, the legal reasoning that seems to ground negligence in Swiss criminal law is largely based on the notion of awareness of risks. Negligent acts, such as those involved in fatal car-crashes, can be considered as conscious or, but this is more tenuous to determine (Jeanneret, 2007, note 38, p. 51), unconscious. The difference between both these forms of negligence is thus very subtle and is partly grounded on subjective and specific criteria related to the awareness of probability of risks. Moreover, the criteria to determine negligence, as we briefly reviewed them, are linked to the notion of reasonable precaution, which is a subjective assessment that is partly related to a person’s evaluation of the situation in which he is performing a given action. Given the role that is attributed to awareness of risk, reasonable precaution and negligence in legal reasoning, this raises the questions of how these issues are perceived in ordinary conceptions. A few noteworthy studies have tackled this issue.

⁶¹ Office fédéral de la statistique (OFS), Results of a survey of motor-vehicle drivers 2008.

⁶² Art. 117 of the Swiss penal code (CP)

⁶³ See chapter I, section 2.1 p.21.

1.4. Ordinary conceptions of negligence in responsibility attributions

Following Heider's (1958) finding that foreseeability was a factor that could be taken into consideration to ascribe more responsibility to a person's actions, instead of merely defining the individual as the cause of his behaviour, other studies have examined how factors, such as awareness and anticipation of risks, influenced people's attributions. Foreseeability of the possibility that actions can lead to harmful outcomes has frequently been found to predict causal and moral responsibility ratings (Fincham & Jaspars, 1983; Fincham & Roberts, 1985; Schultz et al., 1981).

Ordinary reasoning of responsibility also makes a correct distinction between different levels of likelihood of the potential harms risked by an act, as well as different degrees of care to prevent such risks (Karlovac & Darley, 1988). Responsibility judgments are accurately predicted by the degree of precautions taken and by the severity of the risks incurred. People seem also to have a correct conception of the relationship existing between the assessment of the riskiness of an act, in terms of its harmful outcome, and the fact of taking precautions to minimize such risks. Karlovac & Darley's (1988) study also examined the relationship between people's assessment of negligence and the extent to which the agent was careful and acted in adequacy with a reasonable person's conduct. Findings suggest a strong relationship between the "reasonable nature" of precautions taken to avoid harmful outcomes from occurring and levels of negligence ascribed to an agent. Thus, the more the precautions taken were reasonable and appropriate, the less the agent was considered negligent.

Greene, Johns & Bowman (1999), in a study about liability for negligence, demonstrated that reasonable and careless conduct is clearly distinguished in ordinary conceptions. More specifically, they make such a differentiation in terms of their evaluations of different types of precautions taken to prevent harmful outcomes. They also found that negligence ascriptions are more likely if the conduct that is judged is careless, than if it is described as reasonable.

The studies described above thus demonstrate that responsibility ascriptions in ordinary reasoning are influenced by factors such as the degree of awareness of risk and the extent of precautions taken to prevent such risks. Moreover, such factors are also understood as being interdependent, since the more one is aware of risks, the more precautions one should take to prevent them. Finally, these studies demonstrate that, not only do ordinary people take into account foreseeability of harmful outcomes in their ascriptions of responsibility for negligent conduct, but they also consider such factors as the fact of taking precautions to prevent such risks and the adequacy and reasonableness of such precautions. Thus, the notion of controllability, which encompasses evaluations of precautions taken to prevent such risks and foreseeability, could be a crucial element in ordinary perceptions of negligent conduct (Weiner, 1995a). Let us add here that controllability is an important antecedent of blame ascriptions (Alicke, 2000; Mantler et al., 2003).

Given these facts, the question that comes to mind is whether ordinary people would make a difference between conscious and unconscious negligence in their responsibility ascriptions. Moreover, since these legal concepts are partly based on subjective standards related to the offender's awareness of risks, blameworthiness and his personal particularities, will moral and legal responsibility be attributed in the same manner for both types of negligence? In addition, what is the role of the controllability element with regard to these two forms of responsibility?

Thus, this first study aims, not only at understanding whether and how people make the distinction between moral and legal dimensions of responsibility when judging a negligent conduct, but also at examining if and how they distinguish between the two different levels of negligence that exist in legal reasoning. The roles of controllability elements, such as precautions taken and foreseeability, will be also the object of scrutiny.

1.5. Hypotheses

Hypothesis 1

A first hypothesis is that responsibility attributions are constituted of co-existing dimensions related to moral and legal criteria. The moral dimension of responsibility is thus expected to be more related to blame and to blame-related dimensions, such as negative emotions, punitive responses and attitudes concerning internal explanations about the event and punishment goals. The legal dimension of responsibility, on the other hand, should be more based on rational criteria. From this hypothesis, three more specific predictions, concerning the effect of the manipulation of levels of negligence, follow.

First, we expect the manipulation of the levels of negligence to have only an effect on legal responsibility criteria pertaining to negligence, that is, consciousness and voluntariness evaluations. Thus, consciousness and voluntariness ratings should be higher in the conscious negligence condition than in the unconscious negligence condition. This manipulation should not have any impact on intentionality ratings, since negligence, whatever the level, implies no intention. Thus, intentionality ratings are expected to show low levels, whatever the condition.

Second, the manipulation of negligence levels should not affect moral responsibility ratings related to blameworthiness, responsibility for the death of the victim, accountability before the justice system or publicly denouncing the act, since these are not related to rational criteria used in law. This manipulation should not affect respondents' ratings on factors that are related to the moral dimension of responsibility either. Thus, negative emotions such as anger and injustice, as well as measures about punitive responses that can attenuate the harm done to the victim's family and reasons that could explain the event in terms of internal explanations, should show similar ratings, whatever the negligence condition.

Third, as they are related to negligence, such dimensions as "could have taken some precautions to avoid this from happening", "acted carelessly", "could have acted otherwise" and "acted negligently" could be affected by the level of negligence. This means that respondents will show higher ratings concerning the fact that the agent could

have taken some precautions to avoid this from happening, acted carelessly, could have acted otherwise, and acted negligently in the conscious negligence condition than in the unconscious negligence condition.

Hypothesis 2

Ordinary people who evaluate responsibility, given their non-exposure to legal training, are expected to be less sensitive to rational criteria used in law to ascertain different levels of responsibility. Conversely, people who have a legal background, given their greater experience of legal thought, are expected to be more receptive to such rational criteria. Two sets of predictions follow.

First, law students are assumed to be more receptive to rational criteria used to determine responsibility in law, than psychology students. They are expected to have a more legally-consistent understanding of the different dimensions of the rational criteria used in law to determine responsibility (consciousness, voluntariness and intentionality), than psychology students.

Second, a person who has undergone a legal training (law students) should be more sensitive to and thus, show a more legally-coherent understanding of, the legal criteria that are taken into account to ascertain different levels of negligence in legal settings, than a person who was not exposed to such a training (psychology students). This means that law students are expected to differentiate between both levels of negligence, in terms of their consciousness and voluntariness ratings, whereas psychology students should not differentiate between conscious negligence and unconscious negligence. Therefore, law students will rate consciousness and voluntariness higher in the conscious negligence condition, compared to the unconscious negligence condition, whereas psychology students will show similar ratings of consciousness and voluntariness, no matter the condition.

2. Method

2.1. Participants

Participants to this study were 98 first-year psychology students (Median age = 21 years old; 83 female and 13 male, 2 respondents did not indicate their gender) and 117 first-year law students (Median age = 20 years old; 70 female and 47 male) were recruited during their ex-cathedra classes. They were randomly assigned to one of the two conditions manipulated in this study, as indicated in Table 1.1 below. In order to preserve the validity of the experiment, all respondents were informed prior to responding to the questionnaires of the precautions to be taken, such as reading the questions carefully before answering them, responding spontaneously to the items and scales in the order in which they are presented or responding individually.

Table 1.1.: Frequencies by type of study and by negligence condition

Negligence condition	Type of study		Total
	Psychology	Law	
Conscious negligence	49	55	104
Unconscious negligence	49	62	111
Total	98	117	215

2.2. Procedure

The questionnaire study was introduced to the participants as being part of a research on justice. It was also stressed that there were no good or bad answers to the different items they had to respond to and that the point of this study was to gather their opinions. They responded to the questionnaires during their class.

The questionnaires used in the three different studies that will be described here entailed certain identical parts, although some scales were different and the scenario presented to the respondents was modified depending on the variable which was

manipulated. Thus, some scales were identical in all studies and will thus only be described in the methodology section for study 1. The questionnaire was divided in three parts in all studies.

Questionnaire part 1: representations of consciousness, voluntariness and intentionality

In study 1 (as in study 2), the first part included a small vignette (see Appendix 1a) describing a situation where a person, living on the fifth floor of a building, throws a flowerpot out of her window, in a moment of rage. The flowerpot falls and injures a passer-by on the head. After having read this, respondents must evaluate a certain number of items related to the different conditions that could render this act voluntary, conscious or intentional.

This allowed us to gain a better general understanding of the way in which the respondents evaluate and perceive voluntariness, consciousness and intentionality⁶⁴. This also helped us to identify, whether certain dimensions were considered to be more constitutive of consciousness, voluntariness and intentionality than others, when evaluating behaviour, and whether these differences are related to the respondents' type of study.

Questionnaire part 2: manipulation of conscious negligence vs. unconscious negligence

The second part comprised one scenario⁶⁵, presented in the form of a vignette, and different items related to moral and legal responsibility that the respondents had to respond to after having read the scenario (see Appendix 1b).

⁶⁴ These criteria are used in legal reasoning to ascribe responsibility, but let us be reminded that intentionality, in such a legal perspective, is made of the combination of consciousness and voluntariness. However, as we are here trying to ascertain respondents' perceptions of these three criteria, we are considering each criteria separately.

⁶⁵ All participants evaluated in fact two vignettes, inspired from real-life facts, describing, for one a situation in which a person accidentally kills a friend by hitting him with his car (vignette 1), and for the other, a situation in which a child is accidentally killed after having been bitten by a dog that escaped from the owner's supervision (vignette 2). The rationale for including this second vignette was justified at the time by the fact that several cases of fatal dog attacks were the object of much media and political attention in Switzerland. Dog-owners whose negligent care of their animal had resulted in someone being fatally mawled were all of a sudden described as dangerous offenders. This heightened public sensitivity to cases that were before considered as accidents resulted in legislative changes modifying and increasing dog-owners' responsibilities and duties. However, only the fatal car-crash scenario

All respondents were presented a vignette in which an agent fatally hits a friend with his car without having any intention of harming him. This agent is either described as being aware of the consequences of his acts and haven taken precautions to avoid them (conscious negligence) or not having this awareness (unconscious negligence) (see Appendix 1b). Half of the respondents of each field of study had to then evaluate this car-crash vignette in the conscious negligence condition or the unconscious negligence condition on the following measures.

The measures (see Appendix 1c) the respondents have to respond to entailed 5-point Likert scales going from 1 (I do not agree at all) to 5 (I agree totally) which concerned:

1) The different *emotions* (revolt, injustice, anger, pity, sympathy for the family and friends of the victims, compassion for the victim, indifference) that the subject could feel when thinking of the death of the victim.

For the purposes of the analyses that were carried out, we used two mean ratings yielded by the computation of negative and positive emotions. They were produced by the following operation on all measures of emotions. A factorial analysis in principal components with the Varimax rotation method was carried out on the items related to these different emotions. A negative emotions factor (30.94%) and a positive emotions factor (27.03%) resulted from this factor analysis (total variance = 57.98%). The ratings included in the negative emotions factor were then computed into one mean rating (*Memoneg*, $\alpha=.708$) and the same was done for the ratings entailed in the positive emotions factor (*Memopos*, $\alpha=.624$).

2) Two questions controlling for the *plausibility* and the *frequency* of the situation described in the vignette. These were included in order to check for the validity of the scenario.

results were kept for the purpose of this discussion, since the results for the other scenario were uncomparable. Indeed, the results for the vignette concerning the fatal dog attack were unclear and difficult to compare to the ones pertaining to the fatal car-crash (probably because the victim is a child in the dog-attack vignette, whereas the victim in the vignette car-crash is an adult).

3) *Legal responsibility* items measuring the rational criteria of *consciousness* (“...was aware that the fact of driving at high speed in a curve could lead to the death of the victim”), *intentionality* (“...intentionally caused the accident”) and *voluntariness* (“...took freely the decision to drive knowing that this could lead to an accident”) attributed to the perpetrator.

4) Items related to *moral responsibility* such as “...is responsible for the death of the victim”, “...act should be publicly denounced”, “...should be blamed for what he did” and “...should be held accountable by the criminal justice system”.

5) Items related to the *controllability of the act* such as “...could have acted otherwise”, “...could have taken some precautions to avoid this from happening”, “...acted carelessly”, and “...acted negligently”. These items were added in this questionnaire, because the determination of controllability is a precursor of responsibility attributions for negligent and intentional conduct (Schlenker et al., 1994; Weiner, 1995a, 1996).

6) Items *attenuating responsibility* such as “... has acted with mitigating circumstances” or “the fact that the perpetrator did not want to harm or kill the victim is a factor diminishing his responsibility”. These items were added, since mitigating factors are an important element in legal and in moral responsibility judgments (Barnett, Brodsky & Manning Davis, 2004; Weiner, 1995a).

7) Items related to *ways of qualifying the situation* such as “accident”, “negligent homicide” and “intentional homicide”. These items were added because they were expected to be related differently to moral and legal responsibility dimensions.

8) Items related to the *different ways of attenuating the harm caused to the family of the victim*, such as sentencing the agent to prison time, agent has to pay a fine, agent has to pay a sum of money for moral redress, agent has to do some community work, agent has to apologize and explain the circumstances of the event or the agent has to acknowledge his mistakes. As observed previously, research shows that moral responsibility is

particularly related to retributive responses (Carlsmith et al., 2002; Graham et al., 1997) and that such responses may be more spontaneously invoked in ordinary reasoning when related to victims' needs (Oswald et al., 2002). Therefore, we included these measures, since they are, for some, related to punitive responses, such as a prison sentence, and could be related to moral responsibility.

9) Items related to the *responsibilities of other actors* such as the parents of the agent, the victim or the authorities in charge of motor-traffic regulations. The assessment of respondents' conceptions of such responsibilities was taken into account with the hope that it may hone our understanding of their representation of the offender's responsibility. However, this measure did not yield any significant results and will thus not be mentioned in the following discussion concerning the results of this study.

10) A scale comprising thirteen items related to *different explanations that could be put forward for the situation* described in the vignette like external or esoteric reasons (fatality, god's will, luck, fate, unavoidable), reasons related to the lack of norms, values or education prevailing in our society, and victim-blaming reasons. This scale was developed for this study and was conceived to assess the way in which people understand events in terms of types of explanations. Given that internal-external locus of belief and beliefs related to blaming the victim have been related to attribution of responsibility by previous research (Gerbası, Zuckerman & Reis, 1977; Kleinke & Meyer, 1990; Phares, et al., 1971; Phares & Wilson, 1972; Sosis, 1974; Wyer, Bodenhausen & Gorman, 1985), explanations related to such beliefs were included in this scale.

These measures were used in their computed form as mean ratings through the following operation. A factorial analysis of these explanatory measures yielded 3 factors (52.24% total variance). The first factor included measures related to external and esoteric explanations and was named external explanations (18.92%). The second factor comprised explanations, in terms of lack of values, of norms and of education, which were all related to the individual (18.44%); it refers, thus, to individual explanations. The third factor includes measures that attribute the blame to the victim and refers, thus, to victim-blaming explanations (14.87%). The mean ratings for items corresponding to each

of these factors were then computed to create three mean ratings: *Mexpl* ($\alpha=.647$), *Mintexpl* ($\alpha=.796$) and *Mblame* ($\alpha=.569$).

Questionnaire part 3: Anchoring variables of punitive attitudes, experiences of crime and socio-demographic data

The third part of the questionnaire entails general scales (see Appendix 1d) that will allow us to understand better the role of perceiver variables in anchoring respondents' different representations of responsibility. These scales comprise:

1) A scale on attitudes towards different punitive aims represented by 16 items, the majority of which were developed by Languin, Kellerhals & Robert (2006) in their study on the social representations of criminal sentencing. This scale was used in the form of the mean ratings computed through the following operation. A factorial analysis of these punitive aims items yielded 3 factors (49.91% total variance): rehabilitation (19.43%), reparation by retribution (16.22%) and deterrence through incapacitation (14.87%). The ratings for items corresponding to each of these factors were then computed to create 3 mean ratings: *Mrehabilitation* ($\alpha=.764$), *Mretribution* ($\alpha=.697$) and *Mdeterrence* ($\alpha=.652$).

2) Items concerning the topics of discussion respondents have with their friends and their family⁶⁶ and items about the topics that are discussed on television and in the media that are of interest to the respondents⁶⁷. These items were included, because of their potential role as anchors of people's social constructions of responsibility (Haney, 1997; Pennington & Hastie, 1986).

3) Items on whether the respondents know/have been a victim or a perpetrator of a voluntary or an involuntary act that lead to harmful consequences for others. The inclusion of these items was justified given that the experience of violence (as a perpetrator or as a victim) could also have an influence on the assignment of

⁶⁶ These items were also originally developed by Kellerhals, Languin & Robert (2006)

⁶⁷ See note 66

responsibility (Pennington & Hastie, 1986; Roberts, Golding & Fincham, 1987; Roberts & Golding, 1991). The influence of such experiences has also been to be related to sentencing judgments (Przygodski & Mullet, 1993). Such research supports the assumption that experiencing negative events such as violence or serious accidents could also have an influence on the attributions of responsibility for a given negative event. However, this influence could be either positive or negative, as demonstrated by two different observations. Cusson (1998) suggests that people who have suffered an aggression are generally harsher in their judgments of criminal acts than people who have not suffered an aggression. However, Killias (1989), in a Swiss victimisation survey, makes the exact contrary observation: victims are never more punitive than non-victims; non-victims may even be more punitive than victims.

Finally, all respondents had to provide socio-demographic information pertaining to their age, their gender, their marital status, their nationality, their native language, their field and level of study, their parent's profession and educational status, their religious affiliation, their political preferences and whether they have a profession and are a member of an association. All scales comprised in the third part of the questionnaire were also used in the next study, except for the one concerning punitive aims.

3. Results

In order to test our hypotheses, the following analyses were carried. We first used a factor analysis in principal components to highlight respondents' representations of rational criteria for legal responsibility, as well as their representations of moral and legal responsibility. A MANOVA was then carried out in order to test the effect of the negligence condition and the type of study on moral and legal dimensions of responsibility, as well as negligence ratings. Mostly main effects of study and negligence conditions were examined, since only one interaction effect bordering significance was observed for the negligence rating. In order to understand better respondents' evaluations of negligence, the links between negligence ratings and relevant measures were examined using regression analyses and Pearson correlation analyses across the 4 experimental

groups produced by the combination of type of study and negligence condition. Moreover, a one-way ANOVA was also carried out to investigate the effect of type of study on measures related to rational criteria for legal responsibility. The effect of condition was not considered for these measures, since they were evaluated in the first part of the questionnaire, before the car-crash scenario manipulation. Regression analyses were then carried out to assess the role of different predictors for moral and legal responsibility dimensions, as well as controllability. Finally, correlational analyses using the Pearson method, as well as partial correlations were then used to examine the relationships between the responsibility dimensions and some of their relevant correlates, for each experimental group formed by the combination of type of study and the negligence condition.

3.1. Manipulation checks

We began by checking whether the vignette used in this study was considered as plausible and as frequent in both the conscious and the unconscious negligence condition. An ANOVA tested whether respondents evaluated the plausibility and the frequency of the event differently depending on the negligence condition. Respondents did not seem to evaluate differently the plausibility ($F(1,214) = .04$; *ns*) of this vignette and the frequency of occurrence of such events ($F(1,214) = .66$; *ns*) as a function of the condition in which they are assigned. One can thus assume that the wording used to manipulate the level of negligence did not affect the credibility or frequency perceptions concerning the situation evaluated in this study. Let us add that the mean ratings for these two items were rather high, with plausibility ($m=4.18$) being rated even higher than for frequency ($m=3.14$). This indicates that the scenario that was constructed from a real-life event is rather close to reality and does not seem created artificially, which adds support to the validity of respondents' ratings on the items concerning the various dimensions of the evaluation of the agent's actions.

3.2. Existence of overlapping dimensions of responsibility related to moral and legal criteria in respondents' representations

3.2.1. Respondents' representations of rational criteria for legal responsibility

One of the principal assumptions underlying the hypothesis of the existence of a legal dimension of responsibility - in addition to a moral conception related to blame - is that legal responsibility depends on three rational criteria of consciousness, voluntariness and intentionality. Consequently, a first analysis aimed at verifying whether respondents correctly identified the different dimensions related to the three criteria that are used in law to determine responsibility.

A factor analysis in principal components with the Varimax rotation method was carried out on all items related to the criteria of consciousness, voluntariness and intentionality. 4 factors explaining 71.61% of the total variance were highlighted. The Bartlett's test of Sphericity was significant ($\chi^2(78) = 1290.85, p < .001$) and the Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO⁶⁸) was satisfactory (0.818). The items included in the four resulting factors and their corresponding saturations are displayed in Table 1.2. The first factor (29.39%) comprised items related to total consciousness and intentionality and is named **TotCI**. The second factor (18.98%) included all the items relating to voluntariness and is named **Vol**. The third factor (14.02%) concerned the different levels of consciousness of the probability of the occurrence of harmful risks and is called **Risk**. Finally, the fourth factor (9.23%) encompassed the items related to ambiguous intentionality and consciousness⁶⁹ and is referred to as **Amb**. It is to be noted that for some items, saturations higher than .30 were sometimes observed for two different factors. However, in these cases, we chose to take into account the highest value of saturation to decide to which factor the item corresponded to. Such cases concerned only three items included in Vol, Risk and Amb.

⁶⁸ We will hereafter refer to this test as KMO. The Bartlett's test of Sphericity was significant and the Kaiser-Meyer-Olkin Measure of sampling adequacy are tests that allow to evaluate if the factor analysis is valid and can be conducted. If the Bartlett test is significant and the KMO is higher than .6, the factor analysis can be used.

⁶⁹ "Anne threw a pot out of her window, but after having committed that act, she does not understand what happened" and "Anne wanted to throw the pot out of the window, but then decided not to do it, but fell and slipped which resulted in the pot from falling out of the window"

Table 1.2.: Principal component analysis of the scales pertaining to the different dimensions of consciousness, voluntariness and intentionality

Scales	TotCI	Saturation*s			Mean Ratings	S.d.**
		Vol	Risk	Amb		
Anne wanted to hurt someone by throwing the flowerpot out of the window	.855	.085	.162	.030	4.14	1.57
Anne thought about her act and its consequences before committing it	.851	.152	.183	-.013	3.99	1.45
Anne thought about her act before committing it and threw the flower pot knowing that her actions could harm someone	.823	.115	.250	-.077	4.09	1.44
Anne's one and only aim was to hurt someone by throwing the flowerpot out of the window	.821	.119	.208	-.110	4.37	1.36
Anne knew before throwing the pot that her actions were liable for punishment by the law	.572	.192	.321	.256	3.72	1.45
Anne acted freely without any physical or moral constraint from others	-.078	.866	.052	.104	4.25	.989
Anne wanted to throw this flowerpot	.128	.815	.063	-.166	4.21	.986
Anne acted without the intervention of any external force	.159	.770	.126	.104	4.11	1.08
Anne was motivated to throw this flowerpot	.411	.592	-.021	.035	3.99	1.11
Anne knew that the flowerpot she threw could fall on someone	.244	.054	.854	-.038	3.84	1.12
Anne knew that, by throwing a flowerpot out of the window, the odds were great to harm someone	.372	-.017	.826	-.054	4.02	1.11
Anne was intending to throw the pot out of the window, but then decided against it, but slipped and the pot fell out of the window	.072	-.061	-.157	.878	1.50	.832
Anne threw a pot out of her window, but after having committed that act, when she thinks about it, she does not understand what happened	-.518	.094	.307	.549	2.67	1.21

*Saturation*s that are higher than .30 are displayed in bold.

** S.d. stands for standard deviation value

These results demonstrate that respondents related correctly the different dimensions of consciousness, voluntariness and intentionality to the logic of legal reasoning. They differentiated between, on the one hand, dimensions of total consciousness and intentionality (**TotCI** factor) and, on the other hand, voluntariness (**Vol** factor). They also associated the dimensions of consciousness related to two different levels of probability of occurrence of harmful risks that are classically related to negligence and recklessness (**Risk** factor). Finally, they also accurately associated two dimensions of intentionality and consciousness that can be considered ambiguous (**Amb** factor). This means that they differentiated these evaluations as being less constitutive of intentionality and consciousness than the dimensions in the other scales. Evidence for this explanation is provided by the finding, reported in Table 1.2., that the mean ratings for both scales comprised in factor **Amb** are much lower than the mean ratings for the scales comprised in other factors. However, one notices that, in terms of the mean ratings, the dimension of ambiguous intentionality was more firmly rejected, as reflecting intentionality, than the dimension of ambiguous consciousness, as a reflection of consciousness. Respondents' mean ratings and standard deviation values for the ambiguous consciousness scale

showed hesitation in agreeing or not to rate this measure as reflecting consciousness. Conversely, respondents were much more consensual about discarding the intentional ambiguous measure as a reflection of intentionality, as shown by the corresponding standard deviation values.

At a first glimpse, when examining the mean ratings related to consciousness and intentionality, one could conclude that all respondents not only correctly distinguished between intentionality, consciousness and voluntariness measures, but also seem to correctly perceive the different dimensions and levels of consciousness and intentionality. However, t-test analyses for each student group show that this conclusion may be more likely for law students than for psychology students. Mean ratings for consciousness and intentionality measures for each group of respondents are displayed in Table 1.3. T-test analyses showed that law students were more likely to accurately grade the different levels of consciousness and intentionality that were entailed in **Tot CI** and **Risk**, compared to psychology students.

Law students rated “having as one and only aim to hurt someone” as more significantly characteristic of an intentional act than “wanting to hurt someone” ($t(115) = -2.04, p < .05$), “knowing that the odds were great to harm someone by one’s actions” ($t(115) = 6.49, p < .001$) or “knowing that one’s actions could harm someone” ($t(115) = 7.07, p < .001$). Law students were also more likely to rate “wanting to hurt someone” as significantly more intentional than “knowing that one’s actions could harm someone” ($t(115) = -4.24, p < .001$) and that “knowing that the odds were great to harm someone by one’s actions” ($t(115) = 3.77, p < .001$). However, they did not rate “knowing that one’s actions could harm someone” and “knowing that the odds were great to harm someone by one’s actions” as significantly different in terms of their intentional nature ($t(115) = -1.77, ns$). As for consciousness levels, law students rated “thinking about one’s act and its consequences” ($t(115) = 4.75, p < .001$) and “thinking about one’s act and acting while knowing that one’s actions could harm someone” ($t(115) = 5.80, p < .001$) as more characteristic of a conscious action than “knowing that one’s act is liable for punishment”. However, law students rated “thinking about one’s act and its consequences” and “thinking about one’s act and acting while knowing that one’s actions

could harm someone” as both entailing the similar levels of conscious action ($t(115) = -1.30, ns$).

As for psychology students, the following results indicate that they were less likely to accurately grade the different levels of consciousness and intentionality entailed in these measures. Out of all intentionality measures, they rated “having as one and only aim to hurt someone” as significantly more intentional than “wanting to hurt someone” ($t(96) = -2.52, p < .02$). Moreover, they also were more likely to rate “knowing that the odds were great to harm someone by one’s actions” as significantly more intentional than “knowing that one’s actions could harm someone” ($t(115) = -2.77, p < .008$) and “wanting to hurt someone” ($t(96) = -2.02, p < .05$). As for consciousness measures, psychology students did not rate any of these significantly differently from each other.

In addition to the fact that law students may have graded these different measures more in line with legal reasoning about the different levels of intentionality and consciousness, law students may have also rated these different measures in a more consensual manner, than psychology students. Standard deviation values point towards such an interpretation at least, since those are always higher for psychology students than for law students.

Table 1.3.: Mean ratings for consciousness and intentionality measures for law and psychology students

Measures		Law Students		Psychology students	
		Mean	S.d.*	Mean	S.d.*
Consciousness Items	Thinking about one’s act and its consequences before committing it	4.27	1.21	3.66	1.63
	Thinking about one’s act before committing it and acting while knowing that one’s actions are harmful	4.40	1.19	3.71	1.61
	Knowing before acting that one’s actions are liable for punishment by the law	3.78	1.39	3.65	1.51
Intentionality Items	Having as one and only aim to hurt someone	4.68	0.97	4.01	1.64
	Wanting to hurt someone by one’s actions	4.47	1.31	3.75	1.76
	Knowing that the odds were great to harm someone by one’s actions	3.99	1.01	4.06	1.24
	Knowing that one’s action could harm someone	3.86	1.00	3.81	1.25

* S.d. stands for standard deviation value

3.2.2. Respondents' representations of the moral and legal dimensions of responsibility

Since respondents showed a correct understanding of the rational criteria used to ascribe responsibility in the legal sense, it is important to examine how they use these criteria to ascribe responsibility to a person who has caused a road-traffic accident, compared to other morally tainted criteria related to blame.

Thus, a factorial analysis in principal components with the Varimax rotation method of all responsibility-related items was conducted. Three factors accounting for 58.66% of the total variance were yielded, as shown in Table 1.4. Factor 1 (26.40%) included all the items related to moral responsibility, as well as two evaluations related to the controllability of the act. We will refer to this factor as **Moral**. Factor 2 (17.50%) entailed all rational criteria of legal responsibility and is called **Legal**. Factor 3 (14.76%) brings together all items related to negligence and is named **Negligence**. The Bartlett's test of Sphericity was significant $\chi^2(45) = 487.432, p < .001$ and the Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO) was satisfactory (0.787). It is to be noted that, for two items (necessary precautions and acted very carelessly), saturations higher than .30 were observed for two different factors (**Moral** and **Negligence**). For these cases, we chose to take into account the highest value of saturation to decide to which factor the item corresponded to. Thus, "acting carelessly" was included in **Moral** and "necessary precautions" was integrated into **Negligence**.

These findings clearly demonstrate that respondents differentiated between, on the one hand, rational criteria such as consciousness, voluntariness and intentionality, and on the other hand, evaluations that are more related to moral dimensions of responsibility such as blame, being responsible for the death of someone and accountability before justice, as well as morally-tainted evaluations of controllability. Moreover, the negligence factor indicates that respondents associated evaluations that are relevant when judging a negligent conduct, such as the extent to which one acted out of negligence and one did not take all the necessary precautions to avoid a harmful occurrence.

Table 1.4.: Principal component analysis of the scales pertaining to the different measures related to responsibility

Scales	Saturations*			Mean ratings	S.d.**
	Moral	Legal	Negligence		
Blameworthiness	.829	.093	.104	4.27	.910
Responsibility for the death of the victim	.794	.034	-.078	3.80	.988
Accountability before justice	.687	.171	.149	4.31	.831
Could have acted otherwise	.599	.234	.214	4.41	.874
Acted very carelessly	.553	.138	.449	4.63	.686
Consciousness	.120	.846	.049	2.87	1.36
Voluntariness	.072	.802	.188	3.56	1.39
Intentionality	.246	.511	-.263	1.32	.637
Acted out of negligence	-.001	-.057	.785	4.23	1.05
Did not take the necessary precautions to avoid the harmful outcome	.325	.121	.683	4.48	.860

*Saturations that are higher than .30 are displayed in bold

** S.d. stands for standard deviation value

3.3. Effect of the level of negligence on moral and legal dimensions of responsibility as well as negligence ratings

The manipulation of level of negligence was successful in this study, since all respondents differentiated these in terms of the relevant legal criteria they corresponded to. A 2 (type of study) x 2 (negligence condition) MANOVA was carried out and produced a main effect of condition (see Table 1.5). Respondents in the conscious negligence (m=3.27) situation evaluated significantly ($F(1,214) = 18.90; p < .001, \eta = .08$) more that the agent was aware that the fact of driving at high speed in a curve could lead to the death of the victim⁷⁰ than respondents in the unconscious negligence (m=2.49) situation. Moreover, respondents in the conscious negligence situation evaluated significantly ($F(1,214) = 46.76; p < .001, \eta = .18$) more that the agent took freely the decision to drive knowing that this could lead to an accident⁷¹ than respondents in the unconscious negligence situation. No significant main effect of type of study or interaction effects were observed for consciousness and voluntariness measures. These results indicate that evaluations pertaining to the rational criteria of consciousness and voluntariness were affected by the level of negligence of the agent. Thus, consciousness and voluntariness ratings were higher for respondents in the conscious negligence condition, compared to the unconscious condition. This means that respondents in the former condition attributed more legal responsibility to the agent, than respondents in the latter condition did.

⁷⁰ Hereafter this item will be referred to as «consciousness »

⁷¹ Hereafter this item will be referred to as « voluntariness »

Moreover, in line with the predictions of this study, the subtle legal difference between conscious and unconscious negligence only affected these criteria of legal responsibility. The legal responsibility measure of intentionality was not rated differently between both conditions of negligence.

Also in support of our predictions, respondents' responses to all measures of moral responsibility were similar no matter what the condition of negligence in which they were. The negative feelings of anger, revolt and injustice rated by respondents did not differ significantly either depending on the negligence condition. Responses on measures related to the punitive responses that can attenuate the harm done to the victim's family did not show any significant differences between both conditions of negligence. Moreover, all measures of explanations of the events were rated with the same levels of agreement for both conditions.

However, contrary to predictions, respondents' assessments as to whether the perpetrator had acted negligently, carelessly or had not taken the necessary precautions were not rated differently depending on the condition of negligence. These findings could indicate that, for the respondents, a situation in which a conduct is described as amounting to the legal definition of conscious negligence or unconscious negligence is perceived differently in terms of rational criteria, but not in terms of assessments of the extent to which he acted out of negligence, of level of precautions taken and of carelessness. This also implies that the negligence rating or the necessary precautions measure were not affected by the legal level of negligence, contrary to what would have been intuitively expected.

Table 1.5.: Mean ratings for all legal responsibility-related measures for each condition

Measures	Conscious negligence		Unconscious negligence	
	Mean ratings	S.d.*	Mean ratings	S.d.*
Consciousness	3.26	1.37	2.51	1.24
Voluntariness	4.14	1.11	2.96	1.39
Intentionality	1.41	0.70	1.25	0.56

* S.d. stands for standard deviation value

3.4. Effect of type of study on moral and legal dimensions of responsibility as a function of levels of negligence

The second main hypothesis of this study suggested that psychology students should be less sensitive to the manipulation of negligence levels than law students would be, since these nuances in legal culpability are based on legal standards that may not be as perceptible for perceiver who was not trained to identify such rational cues. Results do not support this hypothesis, since no main effect of type of study or interaction effect between condition and study was found for responses concerning consciousness and voluntariness. Law students do not evaluate ratings of consciousness or voluntariness significantly differently than psychology students for these scenarios (see Table 1.6.).

However, as demonstrated in Table 1.6, a main effect of type of study was observed for the rating of negligence ($F(1,212) = 16.43; p < .001, \eta = .07$). Psychology students ($m=4.53$) tend to agree more that the agent acted negligently than law students ($m=3.97$). Let us also add the finding of an interaction effect of type of study and condition bordering significance ($F(1,214) = 3.70; p < .06, \eta = .02$), whereby law students rated negligence lower for conscious negligence, compared to unconscious negligence, whereas negligence was rated highly by psychology students, independently of the legal level of negligence. Additional post-hoc analyses, conducted with the Scheffe method, confirm these findings. They indicate that law students in the conscious negligence condition rate negligence significantly ($F(3,213) = 7.67; p < .001$) lower compared to the other law students and the psychology students in both negligence conditions.

Table 1.6.: Mean ratings for all legal responsibility-related measures and the negligence rating for each condition and for each student group

Measures	Conscious negligence condition				Unconscious negligence condition			
	Law students		Psychology students		Law students		Psychology students	
	Mean	S.d.*	Mean	S.d.*	Mean	S.d.*	Mean	S.d.*
Negligence	3.73	1.27	4.55	0.84	4.23	0.98	4.52	0.80
Consciousness	3.38	1.24	3.14	1.51	2.39	1.22	2.62	1.27
Voluntariness	4.13	1.17	4.16	1.05	2.85	1.48	2.95	1.39
Intentionality	1.36	0.62	1.45	0.79	1.16	0.41	1.33	0.69

* S.d. stands for standard deviation value

3.5. Negligence ratings and their relationship to other relevant correlates as a function of type of study and negligence condition

Since the type of study seems to have an influence on negligence ratings and since previous results did not show an effect of the negligence condition on these ratings, further analyses should be carried out to verify the nature of the effect of the type of study with regard to negligence ratings and necessary precautions. Indeed, such ratings are important elements to consider when evaluating an event that could be qualified as a case of negligent conduct. As necessary precautions are an element to be considered in a legal determination of liability for negligence, their role with regard to negligence could be perceived differently depending on the type of study of the participant and the negligence condition. The following analyses were all carried out by separating respondents by their type of study and the negligence condition they were assigned to.

Following previous research findings, the negligence measure was assumed to be related to the necessary precautions measure and, in accordance with legal reasoning in Swiss Criminal law, could also be related to the qualification of negligent homicide and the legal responsibility mean rating (**Mlegal**)⁷². Four resulting regression analyses were conducted on the negligence measure, using as predictors the legal responsibility mean rating (**Mlegal**), the qualification of negligent homicide and the measure of precautions taken. Significant predictors were only found for the unconscious negligence condition. The appraisal of the extent to which the respondents consider that the offender acted out of negligence seems to be only strongly predicted by the evaluation that the precautions to avoid the outcome were not taken, for both psychology students ($\beta = .665, p < .001$) and law students ($\beta = .297, p < .04$). However, not taking precaution to avoid the outcome seems to be a stronger predictor of negligence ratings for psychology students ($R^2 = .50$), than for law students ($R^2 = .23$). The legal responsibility mean rating and the negligent homicide qualification did not significantly predict negligence ratings in any of the conditions. Let us add that the portion of the variance of the negligence rating explained by necessary precaution was much higher for psychology students compared to law students. A closer examination of the correlation between negligence and necessary

⁷² These mean ratings was yielded by computing the items included in the factors *Moral* and *Legal* that were described in section 3.2.2., p. 99: *Mmoral* ($\alpha = .745$) and *Mlegal* ($\alpha = .605$).

precautions for all four conditions confirms significant results for both types of students ($r_{psy} = .700, p < .001$; $r_{law} = .424, p < .002$) only for the unconscious negligence condition, as found previously. Moreover, the r value for psychology students was significantly different from the one for law students ($z = 2.10, p < .04$).

Negligence ratings do not seem to be associated to legal and rational elements, as shown by the absence of relationship with the negligence condition and the legal responsibility mean rating in these regression analyses. Correlational analyses for all four conditions confirmed this observation, since no significant results were found for the association between negligence ratings and legal responsibility mean ratings.

However, one can wonder if a moral element of responsibility, such as blameworthiness, would be associated to negligence ratings and if this association would depend on the type of study of the subject and the negligence condition. We chose to consider the effect of blameworthiness and not the effect of the moral responsibility rating that was previously yielded in the factor analyses presented in section 3.2.2, because the resulting moral responsibility mean rating did not only include purely moral responsibility-related measures, but also controllability-related ones. Indeed, the moral responsibility factor (which was at the source of the computation of the moral responsibility mean rating) entailed items that were clearly related to blame, but also factors that were less related to blame and more to controllability, such as carelessness and possibilities of acting otherwise. Regression analyses on the dependent variable of negligence, using, in addition to blameworthiness, the same predictors as those used previously, were carried out. Significant results were observed again solely for the unconscious negligence condition, but, they differed this time depending on the type of study of the respondents. For psychology students, negligence ratings were only strongly predicted by necessary precautions ($R^2 = .53$; $\beta = .664, p < .001$). As for law students ($R^2 = .30$), negligence was positively associated to necessary precautions ($\beta = .445, p < .004$) and negligent homicide ($\beta = .266, p < .04$) and negatively related to blameworthiness ($\beta = -.340, p < .02$). Since negligent homicide was not a significant predictor of negligence for law students when blameworthiness was not included in the regression (as demonstrated above), blameworthiness could have an influence on whether negligence ratings are

related to a negligent homicide qualification. Correlational analyses between negligence and the negligent homicide qualification for the four different groups of respondents show that law and psychology students associate significantly negligence and the negligent homicide qualification in the unconscious negligence condition ($r_{psy} = .348, p < .02$; $r_{law} = .365, p < .005$), but not in the conscious negligence condition. However, when controlling for blameworthiness in a partial correlation between negligence and the negligent homicide qualification, in the unconscious negligence condition, this association is no more significant for psychology students, whereas it becomes even stronger for law students ($r = .369, p < .003$). This correlation remains non-significant for all participants in the conscious negligence condition.

Another explanation for the lack of influence of different legal levels of negligence on negligence ratings could be that these ratings are more evaluative than rational in their formulation. They may therefore simply not be related to rational criteria for responsibility. In other words, respondents may have not assessed negligence differently between conscious and unconscious conditions, because they considered that negligence does not depend on being or not conscious of the risks one is taking. The observation of an absence of relationship between negligence ratings and ratings of rational criteria of consciousness for all four conditions warrants support to this explanation. However, one should mention that negligence was found to be significantly related to the voluntariness rating for law students in the unconscious negligence condition ($r = .260, p < .05$). This linkage was not found for any of the other conditions. These results indicate that law students associate the negligence rating to a rational element such as voluntariness in the unconscious negligence condition, whereas psychology students do not make this linkage. Moreover, a similar result appears when examining the association between the measure concerning rational criteria related to the consciousness of the probability of the occurrence of harmful risks (**Risk**) and negligence ratings. Law students in the unconscious negligence condition are the only group of respondents to associate significantly Risk and negligence ($r = .525, p < .001$). This association is not found for the other three groups of respondents. This result and the regression findings concerning the predictive value of necessary precautions, the negligent homicide qualification and blameworthiness for law students in the unconscious negligence condition, indicate that

psychology students and law students reasoned about the negligence rating using different processes. This interpretation is supported by the finding that psychology students consistently associate the negligence rating to the carelessness rating in both conditions ($r_{\text{psyCN}} = .385, p < .006$; $r_{\text{psyUN}} = .752, p < .001$), whereas law students do not relate both ratings, whatever the condition. Let us add that psychology students seem to relate negligence and carelessness more strongly in the unconscious negligence condition, compared to the conscious negligence condition, since the correlations corresponding to these two conditions are significantly different ($z = -2.73, p < .007$). Last but not least, when examining the relationship between negligence ratings and blame for all four groups of respondents, findings suggest manifestly that psychology students are more likely to make this association than law students are. Psychology students associated significantly negligence to blameworthiness for the unconscious negligence condition ($r_{\text{psyUN}} = .351, p < .03$) and also related those two ratings in the conscious negligence condition, although more weakly (effect bordering significance: ($r_{\text{psyCN}} = .271, p < .07$). Law students never associated negligence to blameworthiness.

3.6. Effect of type of study on the representation of rational criteria of consciousness, voluntariness and intentionality

Other findings point towards the assumption that psychology students were less sensitive to legal cues pertaining to legal criteria that are important in determining legal responsibility. These concern respondents' responses on items in the first part of the questionnaire concerning the different dimensions of the criteria of consciousness, voluntariness and intentionality.

Using the factor structure that was yielded by the aforementioned⁷³ factor analysis of all measures related to the rational criteria of consciousness, voluntariness and intentionality, items corresponding to each factor were computed into four corresponding mean ratings: **TotCI**⁷⁴ (Total consciousness/intentionality mean), **Vol**⁷⁵

⁷³ See section 3.2.1. page 95-96

⁷⁴ $\alpha = .898$

(Voluntariness mean), **Risk**⁷⁶ (Consciousness of the probability of risks mean) and **Amb**⁷⁷ (Ambiguous intentionality and consciousness mean). These mean ratings were compared between respondents of the two fields of study with a multivariate analysis of variance. Law students' mean ratings for **TotCI** (m=4.32) and **Vol** (m=4.25) are significantly ($F(1,214) = 11.53; p < .002, \eta = .05$) higher than psychology students' mean ratings (**TotCI**, m=3.76; **Vol**, m=4.02), which could indicate that law students are more likely to identify explicit descriptions of the legal criteria of consciousness and intentionality as such, compared to psychology students.

However, a more detailed and individual look at each of the item ratings that entail **TotCI** and **Vol** shows that this may be more the case for criteria of consciousness and intentionality, than for voluntariness. Indeed, differences between psychology and law students, in terms of their mean ratings for the four measures related to voluntariness, were only found for the item pertaining to the absence of intervention of any external force, ($F(1,210) = 4.27; p < .05, \eta = .02$). Law students (m=4.25) showed higher agreement that the absence of intervention of any external force can imply voluntariness than psychology students (m=3.95). Nevertheless, as indicated in Table 1.3 (p.94), significant differences between types of respondents were found for most items related to total consciousness and intentionality. Law students were more likely to agree that *thinking about one's act and its consequences before committing it* ($F(1,213) = 10.01; p < .003, \eta = .05$) and *thinking about one's act before committing it and acting while knowing that one's actions are harmful* ($F(1,213) = 13.40; p < .001, \eta = .06$) correspond to conscious behaviour, than psychology students. Moreover, law students tended also to be more favourable to assimilating *wanting to hurt someone by one's actions* ($F(1,213) = 11.40; p < .002, \eta = .05$) and *acting with the one and only aim to hurt someone* ($F(1,213) = 14.01; p < .001, \eta = .06$) to intentional action, compared to psychology students. No differences between law and psychology students were found for the item related to *knowing before acting that one's actions are liable for punishment by the law*.

An additional finding of a main effect of type of study ($F(1,214) = 9.49; p < .003, \eta = .04$) for the mean rating for the ambiguous consciousness and intentionality factor

⁷⁵ $\alpha = .780$

⁷⁶ $\alpha = .833$

⁷⁷ $\alpha = .318$

(**Amb**) should also be mentioned. However, since the alpha index for **Amb** is very low, we will examine the mean ratings for the two measures that constitute **Amb** individually. Psychology students agree significantly more than law students that “intending an action, but decided against it and involuntarily committing that action” ($m_{psy}=1.62$; $m_{droit}=1.40$; ($F(1,214) = 3.97$; $p < .05$, $\eta = .02$) and “committing an action, but not understanding what one has done after having acted” ($m_{psy}=2.91$; $m_{droit}=2.47$; ($F(1,214) = 7.33$; $p < .008$, $\eta = .04$) constituted respectively, intentional action and consciousness of one’s actions. Thus, situations that are, in legal reasoning, very difficult to consider as consciousness and intentionality, because of their ambiguity, are considered more as corresponding to consciousness and intentionality by the psychology students than the law students. This could indicate that law students understand the legal subtlety of this ambiguity better than psychology students do.

We assumed that moral and legal dimensions of responsibility were underlain by different processes. Testing this theory requires an examination of the relationships between respondents’ ratings of legal and moral responsibility and their ratings of the negative emotions they felt about the victim’s death, as well as their ratings concerning the different explanations that could be put forward for the situation, punitive responses and retributive punitive aims and different qualifications for the event. Moreover, socio-demographic variables, experiences of being a victim or a perpetrator, as well as topics of discussion and of interest in the media will also be taken into account in their relationship to moral and legal dimensions of responsibility ascriptions.

3.7. Moral and legal dimensions of responsibility and their underlying predictors

We assume that moral responsibility is more likely to be associated to negative emotional reactions, agreement with internal explanations for the event and disagreement with external explanations for the event, agreement with retributive punitive aims, as well as favouring prison as a way to attenuate the harm done, than legal responsibility. Legal

responsibility is expected to be more related to agreeing with rational criteria for responsibility related to the awareness of probability of risks, to legal qualifications of the event, as well as being a law student and being in the conscious negligence condition of level of negligence. In order to test our predictions, linear multiple regression analyses with the method enter were carried out on blameworthiness⁷⁸ ratings and the legal responsibility (Mlegal) mean rating.

As for the predictors used in these analyses, a few explanations concerning their nature seem necessary. For purposes of clarity, for some predictors, we used the mean ratings corresponding to the following groups of items: measures of the consciousness of probability of risks yielded by the factorial analysis of rational criteria for responsibility⁷⁹, measures corresponding to negative emotional reactions⁸⁰, measures related to the internal and external explanations for the event⁸¹ and all items related to retributive punitive aims⁸². The resulting mean ratings were the following: *Risk*, for rational criteria of responsibility related to the awareness of the probability of risk; *Memoneg*, for negative emotional reactions; *Mextexpl and Mintexpl*, for external⁸³ and internal⁸⁴ event explanations; and *Mretribution*, for retributive punitive aims. The other following predictors were used in their original format: the measures related to the qualification of the situation of accident and of negligent homicide, the measure of agreement with prison time being a way of attenuating the harm done, as well as the negligence condition in which the respondents were assigned and their type of study.

Since independent variables such as gender, religious affiliation and political orientation, socio-economic status, life experiences of being or knowing a victim or a perpetrator as well as topics of discussion and of interest in the media, were not

⁷⁸ We chose to use the blameworthiness rating instead of the moral responsibility mean rating, since the latter rating was not purely composed of moral responsibility-related measures.

⁷⁹ The mean ratings of rational criteria for responsibility related to the consciousness of probability of risks (*Mrisk*) are the result of the computing of items related to the Risk factor yielded in section 3.2.1. p. 95-96.

⁸⁰ The mean rating for negative emotions was produced through the computation of all measures of negative emotions that were included into one factor. See section 2.2. p.89.

⁸¹ The mean ratings for internal explanations and external explanations were the product of the computation of the measures entailed in the internal and external factors yielded by the factorial analysis of the measures of the different explanations for the event. See section 2.2 p.91.

⁸² The mean rating for retributive punitive aims is the mean value of all measures related to the reparation through retribution factor. See section 2.2 p.92.

⁸³ *Mextexpl* includes items related to external and esoteric reasons to explain events. Hereafter, we will refer to it as external explanations for events for reasons of clarity.

⁸⁴ *Mintexpl* includes items concerning explanations for events related to lack of values, norms and education. Hereafter, we will refer to it as internal explanations for events for reasons of clarity.

significantly associated to the moral or legal responsibility dimension, we did not include them as predictors in the regression analysis.

3.7.1. Moral and legal responsibility dimensions and their predictors

A first analysis tested the influence of negative emotions (*Memoneg*), of internal and external event explanations (*Mextexpl* and *Mintexpl*), retributive punitive aims (*Mretribution*) and considering prison as a way of attenuating the harm done on blameworthiness. The ratings of the rational criteria for legal responsibility concerning the consciousness of the probability of risks (*Risk*), qualifications of the situation, as well as the level of negligence condition and the field of study were also added as predictors in order to rule out their possible relation to blameworthiness. Thus, the dependent variable, which was the object of this prediction, was the participants' ratings of blameworthiness (**Blame**). As demonstrated in Table 1.7., **Blame** is significantly predicted by disagreement with external reasons to explain of events, agreeing with internal explanations of events, agreeing that prison time can attenuate the harm done, agreeing with the qualification of negligent homicide, as well as feeling strong negative emotions. The strongest predictors are, as follows: not perceiving external and esoteric reasons to be good explanations of these events, considering that lack of education and norms are good explanations of such events and feeling strong negative emotions. Moreover, contrary to our predictions, retributive punitive aims were not significantly associated to *Mmoral*. However, in line with our assumptions, the field of study, the level of negligence condition and rational criteria for responsibility related to the consciousness of the probability of risks did not have any significant influence on *Mmoral*.

A second analysis tested the influence of the same dependent variables as those used in the previous regression on the dependent variable of mean ratings of legal responsibility (**Mlegal**). As a result, as displayed in Table 1.7., **Mlegal** is significantly predicted by the conscious negligence condition, the tendency not to qualify the situation as an accident and agreeing that different levels of consciousness of probability can reflect intentionality. Retributive punitive aims, negative emotions as well as the

qualifications of negligent homicide and of intentional homicide were not significant predictors. Thus, as expected, being in a conscious negligence condition and consciousness of probability of risks were good predictors of legal responsibility mean ratings, although the predictive strength of Risk was less important than that of the negligence condition. In conformity with our expectations, negative emotions, as well as agreeing that prison can attenuate the harm done and favouring retributive punitive aims were not significant predictors of Mlegal. However, some unexpected results were also found. Mlegal was strongly predicted by disagreement with the qualification of accident and was predicted by agreement with internal explanations for events. Moreover, Mlegal, contrary to what was expected, was not significantly predicted by the type of study of the respondent.

Table 1.7.: Multiple regression analyses: Prediction of moral and legal responsibility as well as controllability mean ratings

Independent variables	Mmoral	Mlegal
Mextexpl	-.283***	-.070
Memoneg	.192**	-.079
Mintexpl	.164*	.147*
Negligent homicide qualification	.148*	.081
Prison as a way of attenuating the harm done	.162*	.071
Conscious negligence vs. Unconscious negligence	.020	-.368***
accident qualification	-.056	-.242***
Risk	-.087	.142*
Mretribution	.032	-.065
Law vs. psychology students	-.007	-.073
R ²	.284	.378
Adjusted R ²	.248	.340
R	.533	.615

*** p <.001, ** p <.01, * p <.05

These regressions confirmed some of our assumptions, but some unexpected results were also found. Thus, additional analyses are warranted in order to gain a better understanding of the following issues, especially with regard to the manipulation of the negligence conditions and the type of study of respondents. Thus, these further analyses will all be carried out separately for the four groups of participants resulting from the combination of type of study and negligence condition.

We expected moral responsibility ratings to be predicted by retributive punitive aims and findings did not support this assumption. Moreover, moral responsibility ratings were

associated to an unexpected predictor: the legal qualification of negligent homicide. These unexpected results could be due to the type of study of respondents and the condition in which they responded. Hence, we need to verify whether blameworthiness is related to retributive punitive aims and negligent homicide when one examines these linkages for each condition. Moreover, the associations, which are relevant to punitive attitudes, between blameworthiness, negative emotions and favouring prison as a manner of attenuating the harm done will also be broken down for the four conditions.

Moreover, results in section 3.2.2 (see Table 1.4.) showed that the moral responsibility factor included all blame-related measures except the measure concerning the public denunciation of the agents. As this result contradicts our assumptions, further analyses will be carried in order to clarify the role of the assessment of public denunciation with regard to blameworthiness. As this measure has a punitive and condemnatory undertone, it could be related to blameworthiness as an ensuing social response to the ascription of blame. However, such a response could have a different role depending on the type of study of participants and the negligence condition.

Legal responsibility mean ratings were, in line with our assumptions, predicted by rational criteria and the negligence condition and were not associated to emotions, punitive responses and punitive aims. However, unpredicted associations were found with disagreeing with the non-legal qualification of accident and favouring internal explanations. Further analyses carried out separately for the four different conditions will help us get a better understanding of these relationships.

3.8. Correlates of blameworthiness and the effect of type of study and negligence condition on these linkages

3.8.1. Blameworthiness and its relationship to retributive punitive aims, negative emotions and punitive responses

In line with our assumption, a measure that strongly pertains to moral responsibility, such as blameworthiness, was significantly predicted by all the variables that had been anticipated to have such an effect, except for the retributive punitive aims mean rating.

Yet, previous research has often demonstrated the existence of a strong link between punitive reactions, blame and negative emotions (Averill, 1983; Weiner, 1993). Retributive punitive aims are thought to determine emotions and moral responsibility (Graham et al., 1997) and emotions could influence the linkage between the blameworthiness judgment and the subsequent social response (i.e. a punitive response). We thus carried out further analyses to verify whether blameworthiness was related to negative emotions and the punitive response favouring prison time as a manner to attenuate the harm done to the victim's family, as well as to retributive punitive aims, when examining separately the four conditions in which respondents evaluated these elements.

To begin with, we checked whether negative emotions were associated to blameworthiness in all four conditions. Negative emotions were significantly correlated to blameworthiness in all conditions for the law students ($r_{CN} = .273, p < .05$; $r_{UN} = .254, p < .05$), but were only significantly associated for psychology students in the unconscious negligence condition ($r_{UN} = .304, p < .04$). However, when controlling for retributive punitive aims mean ratings ($M_{retributive}$), these significant associations diminished significantly for law students in both conscious and unconscious negligence conditions, but remained as they were for psychology students in the unconscious negligence condition ($r_{UN} = .305, p < .04$). Let us add that $M_{retributive}$ were only significantly related to blameworthiness for law students in the unconscious negligence condition ($r = .434, p < .001$). Respondents in all other conditions did not associate significantly $M_{retributive}$ and blameworthiness. Finally, when examining if $M_{retributive}$ was still

significantly related to blameworthiness when controlling for negative emotions, for law students in the unconscious negligence condition, partial correlation findings show that this association remains strong, even after partialling out for negative emotions ($r = .398$, $p < .003$).

Moreover, the association between blame and favouring prison time was also investigated to verify the effect of the type of study and negligence condition on this linkage. As it turns out, blameworthiness was significantly related to prison time in all conditions except for the one in which law students were assigned to the conscious negligence condition. Thus, psychology students significantly related blameworthiness to favouring prison for the agent in both the conscious negligence condition ($r = .305$, $p < .04$) and the unconscious negligence condition ($r = .352$, $p < .02$). Law students also significantly and strongly associated blameworthiness and favouring prison time for the agent, but only in the unconscious negligence condition ($r = .469$, $p < .001$).

Finally, as we assume, in line with previous findings (Carlsmith & Darley, 2008) that punitive responses favouring prison are only associated to retributive punitive aims and are not related to utilitarian attitudes, we verified whether this was the case and whether this could be generalised to all groups of respondents independently of their type of study and the negligence conditions. The association between $M_{retributive}$ and favouring prison time for the agent is significant for all groups of respondents ($r_{lawCN} = .488$, $p < .001$; $r_{lawUN} = .495$, $p < .001$; $r_{psyCN} = .401$, $p < .005$), except for psychology students in the unconscious negligence condition. However, no significant relationships were found between $M_{deterrence}$ and the punitive response favouring the imprisonment of the agent for any of the groups of respondents.

Findings until now show that participants seem to relate blameworthiness to punitive reactions and attitudes differently depending on their student status and the condition in which they were assigned to. More specifically, the conscious and unconscious negligence conditions could have a discriminating influence on whether law students associate blameworthiness to punitive attitudes or reactions, whereas the negligence condition may not have such an effect on psychology students' tendency to make such associations. Given these results, we could expect public denunciation ratings to be

differently associated to blameworthiness depending on the type of study and the negligence condition of respondents.

3.8.2. Blameworthiness and its relationship to public denunciation

As we make the assumption that the public denunciation rating could be associated to blameworthiness and could be assimilated to a condemnatory response that ensued a blameworthiness ascription and that could lead to a punitive response (favouring prison), we checked the links between these three measures for all four conditions. Blameworthiness was significantly associated to public denunciation for all groups of participants ($r_{\text{psyCN}} = .352, p < .02$; $r_{\text{psyUN}} = .516, p < .001$; $r_{\text{lawUN}} = .395, p < .003$), except for the law students assigned to the conscious negligence condition. As for the association between public denunciation and favouring prison time for the agent, the only group of participants for which it was significant concerned law students ascribed to the unconscious negligence condition ($r = .367, p < .005$). In all other conditions, this association was not significant.

As shown until now, psychology students always associated blameworthiness to prison and to public denunciation, whereas law students only associated these in the unconscious negligence condition. Moreover, law students in the unconscious negligence condition were the only group of participants to associate public denunciation to prison time. This may indicate that favouring the public denunciation of the agent's actions could have an effect on the association between blameworthiness and favouring prison time, but that this effect would concern more law students in the unconscious negligence condition. Partial correlations confirmed this interpretation, since, when controlling for the influence of the public denunciation response, the association between blameworthiness and prison time weakened significantly for psychology students in both negligence conditions, but remained for law students in the unconscious negligence condition ($r_{\text{lawCN}} = .058, n.s$ $r_{\text{lawUN}} = .378, p < .004$).

3.8.3. Blameworthiness and its relationship to the negligent homicide qualification

Concerning the relationship between blame and the negligent homicide qualification, all groups of respondents show significant correlations ($r_{\text{psyCN}} = .455, p < .002$; $r_{\text{psyUN}} = .357, p < .02$; $r_{\text{lawUN}} = .336, p < .008$), with the exception of law students in the conscious negligence condition. These differences in the association of blame to the negligent homicide qualification between law students and psychology students as a function of the negligence condition are intriguing and could mean that this qualification entailed a different meaning for each type of student. More specifically, one assumption could be that psychology students associated blameworthiness to this qualification with a legal liability in mind, whereas law students may just be more likely to qualify a blameworthy act of negligent homicide in the unconscious negligence condition, because they believe it amounts more to a negligent conduct, compared to the conscious negligence condition. This is all the more possible, since the negligent homicide qualification was not related to legal responsibility by most respondents, except for psychology students in the conscious negligence condition ($r_{\text{psyCN}} = .337, p < .02$). Thus, law students do not associate this qualification to legal responsibility, whereas psychology students do make such an association for the conscious negligence condition.

3.9. The correlates of legal responsibility and the effect of type of study and negligence condition on these linkages

3.9.1. Legal responsibility ratings and their relationship with the non-legal qualification of accident as a function of type of study and negligence condition

Legal responsibility mean ratings were, in line with our assumptions, predicted by rational criteria and were not associated to emotions and punitive aims. As they were also associated to disagreeing with the non-legal qualification of accident, further analyses were performed to understand this relationship with regard to the participants' type of

study and the negligence condition in which they responded. We decided to focus on the role of variables that are considered important in legal reasoning when deciding whether a conduct amounts to negligence and involves a legal liability or is an unfortunate accident that will not be considered in penal terms. These variables are respondents' responses concerning the different levels of probability of risks taken and their correspondence to intentionality (**Risk**) and their assessments of the precautions taken to avoid the harmful outcome. We thus analysed the relationship between these different variables and legal responsibility mean ratings (**Mlegal**) across the four groups of respondents.

Mlegal was significantly negatively associated to the accident qualification for all four groups of respondents ($r_{psyCN} = -.514, p < .001$; $r_{psyUN} = -.307, p < .04$; $r_{lawCN} = -.401, p < .003$; $r_{lawUN} = -.341, p < .008$). Yet, Mlegal was only significantly associated to the Risk measure by law students in the unconscious negligence condition ($r = .272, p < .04$). This association was not found for all psychology students, as well as law students in the conscious negligence condition. Moreover, when examining the relationship between Mlegal and necessary precautions, one observes that such associations are only significant for law students in the unconscious negligence condition ($r = .327, p < .01$). These two ratings are not significantly associated for the three other groups of respondents.

Finally, one should mention that since necessary precautions, legal responsibility and the element of awareness of the probability of risks are important factors to consider in legal reasoning when deciding whether a given conduct constitutes a serious offense and is liable for negligence or is just an accident, one can expect law students to related these elements to the qualification of accident differently, compared to psychology students. In order to gain a better understanding of the roles of these different evaluations in determining whether a respondent would agree or not to qualify the event of accident, regression analyses were carried out separately for each group of respondents, taking into account the type of study and negligence condition. The accident qualification was found to be significantly predicted by one or more of these variables for law students in all conditions and psychology students in the conscious negligence condition. Mlegal ($\beta = -.491, p < .002$) was the only significant predictor for disagreement with the accident

qualification ($R^2 = .275$) for psychology students in the conscious negligence condition. As for law students, the accident qualification was found to be significantly predicted by low agreement with Mlegal ($\beta = -.348, p < .008$) and low agreement with necessary precautions ($\beta = -.342, p < .007$) in the conscious negligence condition ($R^2 = .275$), whereas low Mlegal was the only significant ($\beta = -.330, p < .02$) predictor of the accident qualification in the unconscious negligence condition ($R^2 = .136$).

3.9.2. Legal responsibility and its relationship with blameworthiness as a function of type of study and negligence condition

Previous regression analyses discussed in section 3.5 demonstrate that, when considering possible predictors of negligence ratings, such as necessary precautions, legal responsibility ratings, the negligent homicide qualification and blameworthiness, law students' negligence ratings in the unconscious negligence condition depended on low acceptance of blameworthiness and high agreement with the fact that necessary precautions were not taken and the negligent homicide qualification. Given these linkages, we wanted to check whether blameworthiness and legal responsibility were related and whether such an association was more likely for law students in the unconscious negligence condition. Correlational analyses support this expectation, since only law in the unconscious negligence condition showed a significant association between blameworthiness and legal responsibility ($r = .359, p < .005$). These two ratings were not significantly associated for the three other groups of respondents.

3.10. Additional relevant analyses concerning punitive attitudes

3.10.1. Respondents' acceptance of different punitive attitudes

As a preliminary analysis, we examined mean ratings for all punitive aims and found interesting differences in terms of the nature of the punitive aims that reach most agreement from respondents. A hierarchical cluster analysis using the Ward's method

highlighted three distinct groups of items according to mean ratings. The first group incorporated items related to special and general deterrence, as well as incapacitation, and was called *deterrence*. The second group entailed items concerning the education and rehabilitation of the offender. We will refer to this group of measures as *rehabilitation*. The third group of items is related to retribution and restoration of moral order and will be referred to as *retribution and restoration*. T-test analyses confirmed that respondents significantly rated these three groups of measures differently and these differences were found both for law and psychology students. Mean ratings for each group of items and for each group of respondents are displayed in Table 1.8. As law and psychology students rated these different mean ratings in the same way and significantly differentiated between these ratings, we will only present the t-test values for all respondents, without presenting these for each group of respondents depending on the type of study (see footnotes below for these). *Deterrence* motives seem to be significantly more favoured by respondents, compared to *Rehabilitation* ($t(212) = 10.22, p < .001$)⁸⁵ or *Retribution and restoration* ($t(212) = 26.93, p < .001$)⁸⁶. Moreover, *rehabilitation* also reached significantly ($t(212) = 12.40, p < .001$)⁸⁷ more agreement than *retribution and restoration*.

These findings suggest that, in terms of mean ratings, retribution is not favoured by respondents. However, this does not mean that all respondents do not endorse such a rationale. Indeed, when categorizing respondents in terms of whether the rated retribution high or low⁸⁸, only a minority ($n=51, 23.9\%$) was found to highly endorse such a punitive aim.

⁸⁵ Difference between deterrence and rehabilitation: Law students ($t(114) = 8.35, p < .001$); Psychology students ($t(97) = 6.26, p < .001$).

⁸⁶ Difference between deterrence and retribution and restoration: Law students ($t(114) = 21.26, p < .001$); Psychology students ($t(97) = 16.87, p < .001$).

⁸⁷ Difference between rehabilitation and retribution and restoration: Law students ($t(114) = 10.64, p < .001$); Psychology students ($t(97) = 7.01, p < .001$).

⁸⁸ We computed the retribution mean rating into high retribution (ratings between 4 and 5) and low retribution (ratings between 1 and 3) in order to obtain this classification of respondents.

Table 1.8.: Mean ratings for deterrence, rehabilitation and retribution and restoration punitive goals for each group of students

Punitive goals	Law students		Psychology students		Total
	Mean	S.d.*	Mean	S.d.*	Mean
Deterrence	4.06	0.61	4.02	0.72	4.04
Rehabilitation	3.46	0.75	3.40	0.86	3.43
Retribution and restoration	2.55	0.75	2.67	0.83	2.61

* S.d. stands for standard deviation value

3.10.2. Respondents' punitive attitudes and their socio-demographic characteristics

Socio-demographic variables were expected to have an influence on responsibility judgments, but no evidence of such an effect was found in this research. However, since previous research (Carroll et al., 1987; Languin et al., 2006) shows that socio-demographic variables, related to religion, politics and socio-economic status (SES), can have an effect on punitive attitudes, these links were investigated.

Political orientation had only an influence on responses concerning punitive aims related to the just deserts rationale. A main significant effect of political orientation was observed for “he should get what he deserves” ($F(1, 197) = 4.83; p < .01, \eta = .05$) and “learning discipline” ($F(1, 197) = 3.29; p < .04, \eta = .03$). Thus, people who have a more left ($m_{des} = 2.61; m_{disc} = 3.07$) and centre ($m_{des} = 2.64; m_{disc} = 2.98$) orientation are significantly less likely to agree with the just deserts measure of getting what he deserves and the discipline measure compared to respondents who consider themselves to be from the right political orientation ($m_{des} = 3.24; m_{disc} = 2.53$). However, post-hoc analyses with the Scheffe method show it is especially the just deserts measure that opposes significantly ($p < .02$) respondents from the left orientation to respondents from the right orientation.

Religious belief was found to have an influence on certain punitive aims related to the just deserts rationale and the incapacitation perspective. A main significant effect of religious belief was found for the just deserts measure of “he should get what he deserves” ($F(1, 210) = 5.02; p < .008, \eta = .05$) and for the incapacitation-related measure of “preventing him from harming society” ($F(1, 210) = 5.23; p < .007, \eta = .05$). Thus, respondents who consider themselves believers practicing their religion ($m_{des} = 2.69;$

$m_{\text{incapa}}=4.34$) or without practicing their religion ($m_{\text{des}}=3.10$; $m_{\text{incapa}}=4.37$), could favour more the just deserts and the incapacitation measures than non-believers ($m_{\text{desert}}=2.51$; $m_{\text{incapa}}=3.93$). However, post-hoc analyses with the Scheffe method show that it especially believers who do not practice their religion who are significantly opposed to non-believers, in terms of their acceptance of the just deserts ($p < .02$) and the incapacitation measures ($p < .02$).

Finally, one should mention that socio-economic status had no significant effect on punitive attitudes in this study. Let us add that the type of study did not affect punitive attitudes either and did not interact with the effects of religious beliefs and political orientation that were yielded for attitudes favouring just desert-related punitive aims.

4. Conclusions

4.1. Moral and legal dimensions to responsibility highlighted

The findings of study 1 are consistent with most of the predictions. Results confirmed the first hypothesis concerning the existence of responsibility dimensions, which are related to moral and legal criteria, in respondents' representations. As expected, the moral dimension of responsibility was found to entail blame-related and moral attributions of responsibility, whereas the legal dimension of responsibility included rational criteria such as consciousness, voluntariness and intentionality.

On the one hand, participants' representations associated all moral and blame-related criteria with each other under one dimension. This dimension clearly reflects a moral orientation, since it relates assessments, such as blameworthiness, responsibility for the death of the victim and accountability before justice (as a public condemnation of the harm done). On the other hand, participants' responses associate all the rational criteria together under another dimension. Since these criteria are used to ascribe responsibility in law, they constitute the legal dimension of responsibility. In sum, these results indicate that both moral and legal dimensions of responsibility exist in subjects' representations.

Let us add that the fact that the moral responsibility dimension included also two measures that were more controllability-related concerning the idea that the agent could have acted otherwise and carelessness may not contradict this interpretation, since controllability has been observed as a central factor for blame ascriptions in previous research (Alicke, 2000). Moreover, intuitively, the assessment that the agent could have acted otherwise and the assessment of carelessness reflect more of a lay moral evaluation used in everyday life than an evaluation that would be used in legal settings. This interpretation is supported by the fact that negligence and necessary precautions ratings, which are more relevant to legal settings when judging of a negligence act, were separated from carelessness and acting otherwise in respondents representations, as demonstrated by the factorial structure. Hence, these latter measures were perhaps more associated to blame-related measures in this study by respondents, in contrast to the negligence and precautions measures that were given a status of their own.

The examination of respondents' mean ratings of such morally related measures of responsibility also indicates that they are evaluated relatively high, compared to rational criteria for legal responsibility that could also be relevant to the scenario, such as consciousness and voluntariness. Respondents were thus more susceptible to agree with moral evaluations than with legal criteria for this scenario, even though all subjects generally perceived the differences between both conditions related to legal criteria of consciousness and voluntariness. As previous findings had suggested, people can blame another person for his actions if they judge that he should have acted otherwise (Hamilton, 1980; Lane, 2000), even if they do not consider that these behaviours were intentional (Harvey & Rule, 1978). In other words, moral responsibility evaluations of responsibility may not depend on legal responsibility assessments.

4.2. Effect of the manipulation of levels of negligence

What is more, in line with the predictions of hypothesis 1, the manipulation of legal levels of negligence, such as those pertaining to conscious negligence and unconscious negligence, only affected participants' assessment of consciousness and voluntariness and no other responsibility judgment. Thus, only the legal dimensions of responsibility that were relevant to the manipulation were sensitive to the differences in legal levels of negligence and no measure related to moral responsibility was affected. This provides further support for the assumption that rational criteria such as consciousness or voluntariness represent the legal dimension of responsibility.

An intriguing result is that the manipulation of level of negligence did not affect participants' ratings of negligence. Participants did not relate the manipulation of two forms of legal criteria of negligence (using legal definitions of conscious negligence and unconscious negligence) to their commonsense notion of acting out of negligence. Further analyses showed that only respondents in the unconscious negligence condition strongly related negligence ratings to necessary precautions. Such an association was not observed in the conscious negligence condition. This result is not surprising, since the agent is described as having taken precautions to avoid harmful consequences in the conscious negligence condition, whereas he is described as not being aware that his actions can bring about harmful consequences and, consequently no information is given in the vignette as to the precautions taken by the agent, in the unconscious negligence. Respondents did not associate negligence to not taking necessary precautions when they had to evaluate a car-crash situation in the conscious negligence condition, because the agent is described as having taken precautions to avoid a risk he was aware of taking. These results point towards the conclusion that even though respondents did not evaluate negligence differently depending on the negligence condition, they seem to have differentiated between both negligence conditions, in terms of the association between negligence and necessary precautions. Consequently, the more respondents in the unconscious negligence condition ascribed negligence to the agent, the more they thought that the agent did not take all necessary precautions, whereas respondents' evaluations of

negligence were not related to their perception of necessary precautions when they were in the conscious negligence condition. Respondents, thus, correctly identified the element of absence of necessary precautions taken in the unconscious negligence condition (i.e. Florian calls Julien to make sure that he is ready to film the scene, without thinking that what he is going to do is dangerous) and associated this to heightened negligence. The fact that respondents' evaluations of negligence did not correspond to their necessary precautions ratings for the conscious negligence condition indicates that they identified for this condition that the agent had taken some precautions to avoid harmful consequences (i.e. calling Julien to make sure that the road is clear and that there are no cars coming).

Moreover, findings indicate also that respondents, whatever the negligence condition, did not associate negligence to legal responsibility (Mlegal). But, even though negligence ratings were not associated to the legal responsibility dimension, this does mean that participants did not associate negligence to legal liability. Indeed, findings indicate that negligence was related to the qualification of negligent homicide in respondent's conceptions, but only for the unconscious negligence condition.

Respondents' conceptions of negligence were thus found to be both related to not taking precautions to avoid a harmful outcome and to the qualification of negligent homicide, but uniquely in the unconscious negligence condition. This suggests that respondents in the unconscious negligence condition could be more likely to qualify the event of negligent homicide and consider that necessary precautions to avoid the harmful event from occurring have not been taken if they agree that the agent acted out of negligence.

Negligence ratings were thus not associated to the condition of legal negligence or the legal dimension, but were consistently found to be related to necessary precautions and to the negligent homicide qualification in the unconscious negligence condition. This leads to the conclusion that people may conceive negligence less in terms of mental states such as awareness or foreseeability, than in terms of concrete actions to prevent bad things from happening. However, this interpretation might apply more to psychology students than to law students, as we shall see in the discussion about the effect of type of study.

Let us for now keep this argument in mind, as this issue will be discussed in greater details in the next section.

4.3. Effect of type of study of the respondents

4.3.1. Effect of type of study on rational and legal criteria of responsibility

As for the second hypothesis concerning law students' more precise grasp of the rational and legal criteria of responsibility, in comparison with psychology students, results provide partial support for it.

The hypothesis, in relation to the manipulation of level of negligence in the car-crash scenario, that law students are more sensitive to the legal cues added to differentiate negligence levels in the description of the agent's actions, than psychology students do, was not supported by our findings. Law students did not evaluate that consciousness and voluntariness was higher in the conscious negligence condition than in the unconscious negligence condition, compared to psychology students (who were expected to evaluate negligence similarly no matter the condition). All participants made the distinction between the two conditions in terms of consciousness and voluntariness levels.

However, findings concerning representations of rational criteria of responsibility, in the first part of the questionnaire, do provide evidence to law students' greater sensitivity to legal criteria. Law students were found to be more likely to agree that voluntariness encompasses the idea that intervening external forces cannot explain the commission of the act than psychology students. This is probably due to their training, which imposes greater consideration for the situational constraints, such as those brought about by mechanical dysfunctions, physical dysfunctions or coerced action, when determining voluntariness (Killias, 2001, n. 319 and 320). They are also more likely to agree to assimilate different forms of awareness and intent to conscious and intentional action.

Moreover, the criterion of intentionality was more likely to be perceived, in terms of its different gradations, in a more legally-consistent manner by law students compared to psychology students. When examining differences between ratings related to intentionality, law students were more likely than psychology students to grade these different measures in line with legal reasoning about levels of intentionality. Law students made a clear difference, with decreasing intentionality attached to each item, between total desire to hurt (having as one and only aim to hurt), intent to hurt (wanting to hurt) and foreseeing and being aware of the probability that one's actions can be harmful (knowing that the odds are great to harm someone or knowing that one's actions could harm someone). Yet, they did not differentiate, in terms of intentionality ratings, between the two measures related to the Risk factor: "knowing that one's actions could harm someone" and "knowing that the odds were great to harm someone by one's actions". Psychology students, on the other hand, rated total desire to hurt (one and only aim) as equivalent to knowing that there is a high probability that someone will be harmed (odds are great). They also seem to have considered that intent to hurt (wanting to hurt someone) is equivalent to knowing that there is a probability that someone will be hurt (could be hurt).

Globally, psychology students perceived the fact that, depending on the strength of the assessment that a harmful outcome was preventable and could have been avoided, intentionality can be inferred. This type of intentionality is however not as clear and cut as desiring a harmful outcome to occur and has, therefore, been defined as intentional controllability (Malle, Moses & Baldwin, 2001). They, thus, seem to be less sensitive to the difference between desire to harm and awareness of the probability of risks attached to one's actions, when they evaluate whether an action is intentional, compared to law students.

Law students also judged ambiguous situations more in line with legal reasoning than psychology students did. They made a distinction between intent and intentional action: they ascribed less intentionality to a person who intended to harm someone, who then decided finally against this harmful action, but accidentally harmed this person anyhow, than psychology students did. They also took into account the possibility that a person

may act and may not understand why she acted in that manner (for example, if the person was under the influence of drugs without her knowing it at the time of her actions) and, consequently, ascribe less consciousness than psychology students did.

One should, however, mention that all respondents, whatever their legal training, perceived the rough differences between rational criteria used to evaluate legal responsibility. They associated forms of consciousness and intentionality that are conceived as being total and distinguished them from the dimensions of voluntariness or the different levels of consciousness of the probability of the occurrence of a harmful outcome. All respondents, thus, globally perceived that total awareness of the possible consequences (foreseeability) is a determining factor to attribute intent, in conformity with Heider's (1958) model about levels of responsibility. As for the measures of ambiguity of intentionality and consciousness, all respondents seem to have distinguished these from the other measures as reflecting lower levels of intent and awareness of one's actions. These results indicate that, not only did respondents generally distinguish between total intent and low intent (levels of consciousness of the probability of the occurrence of a harmful outcome), but they also demarcated these assessments from situations in which an intent is not followed by an intentional action (ambiguous intent). This could indicate that they understood that acting intentionally involves not only wanting and desiring to act in a certain manner (action plan), but also enacting this action plan to attain a given and desired aim (Goldman, 1976).

In sum, law students were not more likely to perceive differences between the two negligence conditions, in terms of their consciousness and voluntariness ratings, compared to psychology students. Nevertheless, several findings suggest that they were certainly more sensitive to the different nuances to intentionality and more likely to relate rational criteria to the legal realities attached to a negligent conduct, such as throwing a flower pot out of a window and injuring someone in the process, than psychology students. As findings, related to the evaluation of the car-crash event, concerning negligence ratings and their correlates provide more evidence for law students' heightened focus on the legal underpinnings of these situations, compared to psychology students, we will now turn to these results.

4.3.2. Effect of type of study on negligence ratings and related evaluations

Certain findings related to the negligence rating suggest differences in perceptions of negligence related to the type of study, which could denote the existence of different processes underlying law and psychology respondents' evaluations.

One should first mention the finding that law students were more likely to evaluate that the agent acted negligently in the unconscious negligence condition, compared to the conscious negligence condition. On the other hand, psychology students rated the situation as entailing more negligence than law students did, whatever the level of negligence described in terms of legal criteria (condition of negligence).

Moreover, psychology students, in the unconscious negligence condition, associated the extent to which they considered that the agent acted out of negligence to the fact of not having taken all the necessary precautions to avoid the harmful consequences from occurring significantly more strongly, compared to the law students, in the same negligence condition.

Additional findings indicate that the association between negligence ratings and necessary precautions could depend on different processes depending on the type of study of the respondent. More specifically, findings indicate that, when examining only predictions for the unconscious negligence condition, the addition of blameworthiness to the model of prediction of negligence ratings affects the strength and the nature of predictors only for law students. Indeed, for law students, this new model of prediction shows that low blameworthiness and agreement with the negligent homicide qualification, along with agreement that the necessary precautions were not taken, are all strong predictors of negligence ratings. The comparison of beta values for both regression models also reveals that necessary precautions could be even a stronger predictor of negligence ratings for law students, when the effect of low blameworthiness is accounted for. However, for psychology students, when comparing beta values for necessary precautions between both models, this model adding blameworthiness does not change the predictive power of agreeing that necessary precautions were not taken on the extent to which these respondents agree that the agent acted out of negligence. On the whole, these results suggest that law students are more likely to consider that the agent acted out

of negligence, if they agree that he did not take all the necessary precautions to avoid the harmful events, if they agree to qualify the event of negligent homicide and if they do not agree that the agent is blameworthy for the harmful consequences of his actions. Psychology students may be more likely to just consider the fact that the agent did not take the necessary precautions to avoid the event from happening when they evaluate the extent to which the agent acted out of negligence.

Finally, the association between negligence and other relevant correlates, such as the negligent homicide qualification or the measure of the consciousness of probability of risks, may also be affected by the type of study of respondents. Law and psychology students in the unconscious negligence condition were more likely to qualify the event of negligent homicide when they agreed that the agent acted out of negligence. However, when controlling for the influence of blameworthiness, this association disappeared for psychology students, whereas it grew even stronger for law students. Thus, blameworthiness was more likely to be taken into account by psychology students when they related negligence to the negligent homicide qualification. As for law students, not only did they not rely on blameworthiness to make such an association, but they were even more likely to relate negligence to negligent homicide if they did not consider that the agent's was blameworthy. This suggests that psychology students could be more sensitive to moral dimensions of responsibility when evaluating negligence and qualifying a negligent conduct, compared to law students. Psychology students may be thinking of the fact of "acting out of negligence" as an evaluative judgment, than as a rational judgment, compared to law students. Another result which suggests such an interpretation concerns the fact that negligence was always related to carelessness and blameworthiness by psychology students, whereas law students never made these associations, whatever the condition. Other findings show that law students may be more likely to rely on rational criteria to make negligence evaluations, compared to psychology students. Law students in the unconscious negligence condition were the only group of respondents who significantly associated negligence ratings to voluntariness ratings and to mean ratings related to consciousness of probability of risks measure (Risk). Thus, only law students who were in the unconscious negligence condition perceived a relationship between respectively, freely taking the decision to drive knowing that this

could lead to an accident and the criteria of consciousness of probability of risks, and acting out of negligence. They did not associate these in the conscious negligence condition. In other words, law students in the unconscious negligence condition were more likely to agree that the agent acted out of negligence, if they also thought that he had acted voluntarily and agreed that different levels of probability of risks corresponded to matching intentionality levels.

These results could indicate globally that negligence ratings were more likely to be related to rational and legal evaluations related to the consciousness of the probability of risks for law students, whereas negligence was more likely to be underlain by moral and evaluative judgments, such as blameworthiness and carelessness, for psychology students. This suggests that legal standards of negligence that are related in part to rational criteria, such as consciousness, may not correspond to ordinary evaluations of negligent conduct. Findings showing that necessary precautions could be more strongly related to negligence ratings for psychology students, than for law students, add one more element to this interpretation. This could mean that ordinary evaluations of negligent conduct are more likely to consider only necessary precautions to evaluate negligence, whereas legal reasoning may not only consider necessary precautions, but also the element of awareness of probability of risks.

Thus, the standard of reasonable precaution, used in Swiss criminal law to determine whether a conduct is liable for negligence, may be, in psychology students' conceptions, less related to an awareness of risks *per se* than to an instinctive reaction that would be considered appropriate and necessary. This finding is, for that matter, in tune with previous findings (Karlovac & Darley, 1988) of the central role of element of precautions taken in determining negligence for a given conduct. Legal standards of negligence that are related in part to rational criteria, such as consciousness, may not correspond to ordinary evaluations of negligent conduct.

4.4. Factors underlying blameworthiness and legal responsibility dimensions

4.4.1. Correlates of blameworthiness

As we had anticipated, regression analyses demonstrated that blameworthiness was mostly predicted by very different factors, compared to the legal dimension of responsibility.

Blameworthiness was strongly predicted by disagreeing that external and esoteric factors can explain this event and by feeling intense negative emotions. It was also predicted, although less strongly by agreeing that harm done to the victim's family can be attenuated by imprisoning the offender, by qualifying the situation of negligent homicide and by agreeing that factors inherent to the individual, such as lack of education, values and civic sense (internal factors), can explain such events. Contrary to our predictions, however, blameworthiness was not significantly predicted by retributive aims.

However, more detailed analyses carried out separately for each group of respondents, according to their type of study and the negligent condition they were assigned to, indicate that the associations between blameworthiness, punitive responses and attitudes, negative emotions and the negligent homicide qualification often depended on the type of study of the respondent.

4.4.2. Blameworthiness and its association to negative emotions, punitive responses and retributive punitive attitudes

Regression analyses showed that blameworthiness was strongly related to negative emotions, in conformity with our predictions and with previous findings (Quigley & Tedeschi, 1996; Weiner, 1986, 1996). However, when examining this association separately for each of the four groups of respondents a more nuanced picture emerges. Negative emotions are associated, although not very strongly, to blameworthiness for all groups of respondents, except for psychology students who are in the conscious

negligence condition. However, this association, for law students in both conditions, could depend on retributive punitive attitudes, whereas it is independent of such attitudes for psychology students in the unconscious negligence condition. Indeed, when controlling for the effect of retributive punitive aims mean ratings ($M_{\text{retributive}}$), the association between blameworthiness and negative emotions disappears for all law students, but becomes even stronger for psychology students in the unconscious negligence condition. Thus, retributive punitive attitudes seem to have a different influence on these moral-emotional linkages depending on respondents' type of study.

Another result that adds support to this analysis concerns the fact that only law students in the unconscious negligence condition significantly associated their punitive retributive mean ratings to their blameworthiness ratings. Thus, the more law students in the unconscious negligence condition ascribed blameworthiness to the agent, the more they favoured retributive punitive aims. This relationship was not observed for the other groups of respondents and further analyses showed that it did not depend on the negative emotions felt by law students in that negligence condition. Thus, contrary to Graham et al's (1997) findings, the relationship between blameworthiness and retributive punitive attitudes was independent of whether the law students felt intense negative emotions. Moreover, our prediction that blameworthiness would be associated to retributive punitive attitudes was supported only for law students who were ascribed to the unconscious negligence condition.

Let us add that the association between blameworthiness and punitive responses favouring the imprisonment of the agent as a way to attenuate the harm done to the victim's family showed also noteworthy differences depending on the student status and the negligence condition. All psychology students associated blameworthiness to favouring the punitive responses of prison, whereas only law students who were in the unconscious negligence condition made this association. The same differences between groups of respondents were found for the link between blameworthiness and public denunciation. Psychology students always associated ascribing blameworthiness to the agent to favouring the public denunciation of his acts, whereas law students adopted this stance only in the unconscious negligence condition. Moreover, public denunciation was only found to be associated to favouring the imprisonment for the agent for law students

in the unconscious negligence condition. Additional analyses showed that public denunciation was an important element to consider for psychology students to associate blameworthiness to favouring prison time for the agent, whereas this was not the case for law students. Indeed, when controlling for the effect of public denunciation on the association between blameworthiness and prison time, this effect disappears for psychology students, but remains strong for law students. These results suggest that the public denunciation rating could act as a condemnatory response that makes blameworthiness ascriptions more likely to be matched with punitive responses favouring the imprisonment of the agent for psychology students, compared to law students. Law students may not depend on the extent to which they agree with the public denunciation of the agent's actions to associate their blameworthiness ratings to their acceptance of a punitive response. However, agreeing with the public denunciation of the agent's acts may be more likely to lead to favouring the imprisonment for law students, especially in the unconscious negligence condition. Another observation that is worth mentioning in this context is that blameworthiness and legal responsibility were only significantly associated by law students in the unconscious negligence condition. Thus, the more they ascribed moral responsibility to the agent, the more likely they were to also consider that the agent was legally responsible for his actions.

In sum, all these results indicate that the association between blameworthiness and retributive punitive attitudes, as well as legal responsibility, is more likely for law students in the unconscious negligence condition, than for the other groups of respondents. Moreover, this association between blameworthiness and retributive punitive attitudes, for law students in the unconscious negligence condition, does not depend on negative emotional feelings. Findings also show that public denunciation is more likely to be related to favouring prison for law students in the unconscious negligence condition, but not for other respondents. These various findings, as well as the findings discussed previously concerning negligence, seem to suggest that law students may be more likely to show a harsher tendency in their judgments in the unconscious negligence condition, compared to the conscious negligence condition. They may be more likely to favour a punitive stance when the agent who causes the fatal event is

described as not being aware of the risks attached to his behaviour, than when he has such awareness and takes precautions to avoid harmful risks from occurring.

Moreover, findings also indicate that favouring the public denunciation of the agent's actions could be a strong determining factor for psychology students to be more likely to blame the agent and to associate this blameworthiness ascription to favouring punitive responses. The link between blameworthiness and punitive responses could be influenced by different processes depending on the type of study of respondents: it could be less dependent on emotional (negative emotions) and condemnatory responses (public denunciation) for law students, compared to psychology students.

Thus, for psychology students, the public denunciation of the agent and negative emotional feelings could act, in that sense, as a retributive-oriented (public condemnation which denounces the violation of the moral order) and condemnatory response that would render punitive responses more likely when high blameworthiness is ascribed. The extent to which psychology students who cast blame on the agent tend to respond in a punitive manner may depend strongly on their tendency to favour a retributive-oriented condemnation of his actions. These findings are in line with Feinberg's (1970) contention of a moral linkage to retributive aims. Furthermore, the fact that public denunciation is more likely to determine the association between blameworthiness and punitive responses for psychology students, but not for law students, could indicate that psychology students are more likely to follow a moral outrage stance than law students. This interpretation can also be connected to Feather's (1996) finding that attributions of blame are related to whether the respondent thinks that agent deserves to be sanctioned, which in turn determines his attitudes about the harshness of the punishment that is to be imposed to the offender. The public denunciation rating being a form of public condemnation of a blameworthy act that leads to favouring retributive punishments such as imprisonment, such a condemnatory evaluation could reflect the deservingness attributed to the agent with regard to sanctioning his actions.

However, agreeing with the imprisonment of the agent may be less due an emotional and moral outrage response for law students than for psychology students. This interpretation is supported by the fact several other related findings. Only law students in the unconscious negligence condition associated retributive punitive aims to

blameworthiness and this link did not depend on feeling negative emotions. Moreover, after partialling out the effect of public denunciation, law students, in the unconscious negligence condition, still associated blameworthiness to favouring prison time, whereas this association disappeared for psychology students. Finally, results also suggest that when it comes to whether favouring the public denunciation of the agent's acts will actually lead to agreeing with a punitive response such as prison time, only law students in the unconscious negligence condition could be more likely to make such an association of responses. Similarly, law students in the unconscious negligence condition are the only ones to be more likely to ascribe legal responsibility, if they also ascribe moral responsibility. This result and the other linkages that were specific to law students in the unconscious negligence condition between moral responsibility and favouring prison, as well as between public denunciation and prison, could mean that the unconscious negligence condition, for these respondents, is more likely to not only trigger high blame evaluations, but also a high legal liability to harsh penal outcomes

Finally, let us add that as retributive motives were found to be related to blame and were not related to legal responsibility, retributive attitudes could be the product of an intuitive and non-rational reasoning process, in line with Carlsmith's & Darley's (2008) theory. Moreover, associations between retributive punitive aims and favouring prison were found for most groups of respondents, whereas such associations between utilitarian punitive attitudes and this punitive response were not found for any of the groups of respondents. This means that respondents may have relied only on a retributive stance to assess whether imprisoning the agent could attenuate the harm done to the victim's family. This finding can be assimilated to Carlsmith and Darley's (2008) suggestion that people are "intuitive retributivists" and that utilitarian motives do not determine the manner in which they reason about punishment.

4.4.3. Blameworthiness and its association to the negligent homicide qualification

As for the association between negligent homicide and blameworthiness, it was observed for all groups of respondents, except law students in the conscious negligence condition. This could indicate that law students, were less likely to associate blameworthiness to the negligent homicide qualification in this condition, compared to the unconscious negligence condition, because they consider that the conscious negligence condition is less likely to amount to a moral responsibility evaluation that could lead to a legal qualification, compared to the unconscious negligence condition. Psychology students do not make such a distinction between both conditions on this association, because they may not be sensitive to the same cues that triggered law students' perceptions. However, here one should also note that the negligent homicide qualification is not at all related to the legal responsibility dimension for all law students, as well as psychology students in the unconscious negligence condition. Only psychology students in the conscious negligence condition made this association. Consequently, law students in the unconscious negligence condition may be more likely to think of the event as a negligent homicide when they blame the agent, but that does not mean that such qualifications are accompanied by heightened evaluations of legal responsibility also. All in all, this could mean that law students agree that the agent's actions are serious and blameworthy and should be liable to some sort of sanction, but they also understand that the legal responsibility attached to such behaviour is minimal and should not be taken into account. This could explain why, as we shall see also in section 4.4.2, they were also more likely to qualify the event of accident if they rated the legal responsibility as low, whereas psychology students did not base their judgment of the accidental nature of the event on legal responsibility for the unconscious negligence condition.

4.4.4. Correlates of legal responsibility

As for the legal responsibility dimension, regression analyses confirmed an absence of relationship between legal responsibility and emotional and attitudinal factors. The

only predictors of this dimension that were highlighted were the conscious negligence condition, disagreement with a non-legal qualification of “accident”, agreement with the different levels of awareness of the probability of a harmful outcome (Risk) and agreement with internal explanations for events. These results point overall towards the conclusion that the legal responsibility dimension is generally more affected by rational elements of reasoning and less by moral criteria related to values, attitudes and emotions.

Further analyses were then carried out, as we expected the relationship between the accident qualification, Risk and legal responsibility to vary depending on the type of study of respondents and the condition. Moreover, as the evaluation of whether necessary precautions were taken to avoid the harmful event from occurring is an important element to consider when evaluating negligent conduct in legal reasoning, we also checked whether this element’s association to legal responsibility was in anyway influenced by the type of study of respondents and the condition.

As a result, all respondents were more likely to disagree with the accident qualification when they ascribed high legal responsibility, no matter what their student status and the negligence condition in which they were. However, only law students in the unconscious negligence condition were more likely to ascribe high legal responsibility, if they also agreed that different levels of consciousness of the probability of risks corresponded to different levels of intentionality. These results suggest that, although all respondents agree that higher responsibility is more likely to mean that the event will not be considered as accidental, only law students in the unconscious negligence condition associate higher ratings of Risk (agreeing that consciousness of probability of risks amounts to a certain level of intentionality) to legal responsibility. Likewise, only law students in the unconscious negligence condition associate necessary precautions to legal responsibility.

Thus, law students in the condition in which the agent is described as being unaware of the risks he is taking and is not described as taking any precautions to avoid this risk (he has not anticipated) are the only respondents to associate the element of consciousness of probability of risks and the fact of not taking necessary precautions for

avoid the event to the legal responsibility dimension. However, they are also the only group of respondents who associated blameworthiness to legal responsibility.

Regression analyses using necessary precautions, consciousness of the probability of risks and Mlegal as predictors for the accident qualification add further elements to this discussion. They indicate that Mlegal was the sole significant predictor of agreeing with the accident qualification for psychology students in the conscious negligence condition and law students in the unconscious negligence condition, whereas Mlegal and necessary precautions were found to predict this qualification for law students in the conscious negligence condition. All these relationships were negative. Thus, psychology students were more likely to base their evaluation of whether this event was accidental on low legal responsibility in the unconscious negligence condition, but did not evaluate the possibility that the event was accidental on legal responsibility or necessary precautions in the unconscious negligence condition. Law students were more likely to consider that this event was accidental if they ascribed low legal responsibility to the agent and did not agree that he did not take all necessary precautions in the conscious negligence condition, whereas they were more likely to make such a qualification if they only ascribed low legal responsibility to the agent in the unconscious negligence condition.

Overall, these results indicate that ascribing low legal responsibility is a crucial element in participants' reasoning process when they perceive that a negligent conduct is not accidental and is susceptible to be dealt with by the penal system. However, results seem to suggest that law students were more likely to take into consideration the element of necessary precautions, in addition to legal responsibility when deciding whether this event was accidental in the condition in which such precautions were described as having been taken by the agent (conscious negligence). Law students were probably more receptive to the presence of necessary precautions taken in the conscious negligence condition when agreeing with the accident qualification, compared to psychology students who just took into account low legal responsibility to agree that this was an accidental event. This could mean that law students discriminated between both levels of negligence and understood that both of these events could be qualified as an accident but that this qualification would depend on a different reasoning depending on the negligence

condition and the cues corresponding to it. Psychology students were more likely to qualify the event as accidental when they ascribed low legal responsibility to the agent in the conscious negligence condition, maybe because they felt that the awareness of the probability of risks element in this condition was an indicator that the event did not happen just by accident. This result can be related to the finding that psychology students did not relate legal responsibility to the negligent homicide qualification for the unconscious negligence condition, whereas they did make such association for the conscious negligence condition. Thus, legal responsibility was probably considered less relevant to the manner in which psychology students qualified the event in the unconscious negligence condition, because they were less likely to consider this condition to be to be relevant for such a liability, compared to law students.

These results reveal that law students are more likely to associate rational elements, such as the consciousness of the probability of risks, as well as relevant factors for negligence, such as necessary precautions, to the legal responsibility dimension, in coherence with the negligence condition they are evaluating. Law students were probably more likely than psychology students to understand that the elements that could be used in legal reasoning to evaluate liability were different depending on the condition. In the conscious negligence condition, the degree of necessary precautions taken and the awareness of the probability of risks were to be considered to decide whether or not the person was liable, whereas, in the unconscious negligence condition, the lack of awareness of probability of risks (and the consequent lack of precautions taken) was the most determining factor to decide whether a penal outcome could follow. Psychology students did not follow such a reasoning process: they just detected that in the conscious negligence condition, the agent was described as being aware of risks and taking precautions to avoid them. They consequently reasoned that the less he was aware of the risks, the less he acted voluntarily and intentionally (elements entailed in the legal responsibility dimension) and the more this event could be considered as accidental.

4.5. Punitive attitudes and the effect of respondents' religious affiliation, political orientation and SES

Findings show that respondents, in terms of mean ratings, whether they study law or psychology, seem to favour more deterrence and rehabilitation punitive aims, than retributive punitive aims. Only a minority of respondents were shown to have favoured strongly the retributive rationale. Moreover, only retributive attitudes were found to be related to punitive responses favouring prison and no such associations were found for utilitarian goals. Thus, ordinary reasoning may consider deterrence as an important punishment goal, but does not necessarily assimilate this perspective to punishment, in line with previous findings (Carlsmith et al., 2002).

Moreover, not only were retributive punitive attitudes only favoured by a minority of respondents, but this minority is also characterized by specific religious and political attributes. A right political orientation and believing in a religion made respondents more likely to favour just deserts punitive aims, compared to respondents from the left political orientation and who do not have a religious affiliation. These results are in line with previous findings that retributive attitudes are more likely to be found in people who hold conservative political values and religious beliefs (Carroll et al., 1987; Languin et al., 2006).

Finally, let us mention that socio-demographic information, such as religious affiliation and political orientation did not predict moral and legal responsibility ratings in this research.

4.6. General conclusion and limitations

Overall, results in this study imply considerable evidence for the hypothesis of a legal and a moral dimension of responsibility. Moreover, these dimensions seem also to be determined by very different elements. Findings provided indeed a convincing demonstration that blameworthiness is more likely to be related to punitive-related attitudes, attitudes favouring internal explanations and rejecting external ones, as well as

negative emotions, than to rational and legal criteria. The legal dimension is, on the other hand, clearly more based on rational criteria of consciousness, voluntariness and intentionality. Thus, the negligence condition only had an effect on relevant legal responsibility criteria and factors related to legal evaluations of negligence were consistently associated to legal responsibility.

As for the hypothesis that law students may be more sensitive to legal levels of negligence and legal criteria related to responsibility, some results provide support for this theory. Law students may integrate more rational criteria in their judgments of responsibility and negligence than psychology students do. However, findings concerning the differences between more ordinary reasoning of responsibility and more legal conceptions of it are not robust and do not generalize to the manipulation of level of negligence. Indeed, contrary to our expectations, law students did not rate consciousness and voluntariness differently from psychology students depending on the level of negligence they were judging.

Finally, although moral and legal dimensions of responsibility may be determined by different processes, the fact that blameworthiness and legal responsibility were related for law students in the unconscious negligence condition points towards the hypothesis that these dimensions could also be related.

Even though these results were quite promising, some limitations should be highlighted.

First, the moral responsibility dimension that was yielded in this study did not entail only blame-related measures and rendered results concerning the factors underlying the moral dimension unclear. Blameworthiness was the only assessment that was clearly related to the dimensions we expected to be associated to moral responsibility. The fact that the moral responsibility dimension was clouded in this study by the presence of controllability measures could be because the scenario used was not salient enough, in terms of the level of culpability of the agent. Moreover, this study was done with students from the University of Geneva and this scenario was based on a real story that happened a few months before to a student coming from this same university. Thus, many students may have known of this story before assessing it and may even have known personally

the agent. Their ratings may have been biased in that sense, because they may have already had a preconceived opinion or attitude about the agent's blameworthiness. Thus, the next study will be carried out with a student population from a different university, namely the University of Lausanne. It will assess respondents' responsibility ratings to a scenario in which the legal level of culpability is more salient than the one used in this study. We expect the moral responsibility dimension to be more blame-related and the differences between this dimension and the controllability elements to be more marked with these changes. The linkage between negative emotions and the moral responsibility dimension should also be more explicit.

Second, psychology students and law students showed a different sensitivity to legal cues in the measures related to the dimensions of rational criteria for legal responsibility, but did not evaluate the scenario differently with regard to the manipulation of the level of negligence. This could again be due to the lack of salience of the legal cues in the scenario. The next study will thus use more distinct levels of responsibility (negligence vs. intentionality) to examine the manner in which psychology students, compared to law students, judge this situation. Such pronounced gradations of responsibility should result in more marked differences in participants' ratings of legal responsibility. More specifically, law students' responses concerning rational criteria should be clearly distinguishable, compared to psychology students' ratings. They should demonstrate more markedly that law students are more likely to be attuned to the presence of legal cues and are more likely to respond in a legally-consistent manner, compared to psychology students. They could also reveal a tendency, observed mainly for negligence ratings and their correlates in this study, for psychology students to show more moral and evaluative response patterns.

III. Study 2. Moral and legal dimensions of responsibility for different levels of culpability: the limit between negligence and recklessness

1. Introduction

Serious road traffic offenses have been particularly the target of proposals for new legislation and sentencing laws because of their inherent nature of “ultimate harm” that is particularly difficult to accept for most human beings (Cunningham, 2008). This increased penalization could be the result of society’s intolerance for risks (Garland, 2000; Zedner, 2009). In such a perspective, the identification of criminal responsibility prevails over the acceptance of the accidental and involuntary nature of certain acts, such as those involved in fatal road traffic offenses. This leads to a growing tendency, for the media and political actors, to denounce publicly road traffic offenders and to demand more punitive legal action, especially when they lead to fatal consequences. Consequently, the harsher stance towards road traffic offenders has not only affected criminal policy and yielded recurrent demands for harsher sanction for such offenses, but has also impinged upon sentencing practices. Court decisions concerning fatal road traffic offenses have been particularly influenced by this punitive turn. This is partly due to an increasing tendency, especially in the last five years, for courts to favour the legal definition of recklessness⁸⁹ over the legal definition of conscious negligence, and thereby, apply harsher sentences to these situations. This tendency towards recklessness judgments seems to be prevalent not only in Switzerland (Jeanneret, 2008), which has a civil law tradition, but also in the United States (Rapp, 2008) and England (Cunningham, 2008) which have a common law system.

⁸⁹ Switzerland has a civil law tradition. Thus Swiss law uses the term “*dolus eventualis*” to describe an action where a person is not only aware of the probability of the risk he/she is taking by his/her actions, but accepts this risks and decides to accept this possibility and act anyhow. “*Dolus eventualis*” is comparable to recklessness, in terms of the state of mind it describes, according to Lareau (2001). According, to Killias (2001), recklessness can be considered as a form of culpability used in American law, which is located between “*dolus eventualis*” and conscious negligence. We choose here to use the term recklessness to refer to *dolus eventualis* for reasons of clarity. However, we do not consider that *dolus eventualis* and recklessness are totally identical, in terms of their legal meanings.

Yet recklessness implies a wilful disregard for the risk of serious harm an agent knew was a highly probable outcome, whereas negligence means that the agent failed to take a reasonable precaution against a risk of harm that he knew could occur. In other words, following Killias et al's (2008) reasoning, conscious negligence implies that one knows the risks attached to one's actions, but one does not, consequently, attempt to act in a different manner, because one does not think that a harmful outcome will occur; one would not persist in such actions, if one was sure that they would produce a harmful outcome. Conversely, recklessness means that one knows about the risks too, one accepts the possibility for these to lead to a harmful outcome, without wanting these to occur; one would act even if one were certain that this harmful outcome will be produced.

1.1. The limit between recklessness and negligence in Swiss Criminal law

Driving offenses that occur out of negligence, such as careless driving, are punished, with a hope to improve the way in which people generally drive and to make them drive more carefully. However, this is difficult to justify sometimes because one can theoretically only criminalize an act that is committed by a person possessing at least the awareness of the risk of harm linked to his actions. Only acts in which this awareness is explicitly identified and reflects gross negligence, are generally liable to custodial sentences, but such sanctions are less harsh compared to those incurred for offenses involving recklessness. As a remedy, courts have tried, not always successfully⁹⁰, to resort to the legal definition of recklessness to determine harsher sentences for some borderline cases, in which the limit with negligence was not clearly demarcated. Recklessness and conscious negligence imply both that the agent is conscious of the probability of risks that a harmful outcome will occur. However, they differ from each other, in terms of the presence or absence of voluntariness. Recklessness entails an element of intent, because it implies the presence of voluntariness in addition to consciousness. Conversely, conscious negligence only involves the element of

⁹⁰ In Switzerland, cantonal jurisprudence has been contradictory on that matter in the past years. Comparing between similar fatal road traffic offenses, some cases were judged as entailing negligence and other cases were judged as entailing recklessness. See Rauschenbach (2009) and Jeanneret (2008) for more information.

consciousness. The determination of the fine line between the absence and the presence of the element of voluntariness (and thus, intent) has been, in some cases, an edgy matter, as we will see further.

Recklessness is considered in Swiss criminal law as a form of culpable intention whereby the perpetrator, 1) anticipates that his actions can lead to the occurrence of an offense 2) desires such a consequence, if it were to occur: “he accepts or disregards such an outcome”⁹¹. Thus, an offense is considered intentional if an offender “considers the possibility that an offense will result and accepts this possibility in the case it occurs”⁹². It is considered that the higher the probability that the offense will occur and the more serious the violation of the duty of precaution, the more likely the perpetrator accepted the occurrence of such liable outcomes⁹³. However, this definition raises an issue suggested by Guignard (1988): Is it realistic to assume that a person who commits a fatal road traffic offense accepts the death of others, without having an idea as to of who will be killed, how many deaths will be caused and in what circumstances will such events happen?

Several definitions of the limit between negligence and recklessness have been made by the Swiss Federal Court in the last decade. Acting out of recklessness was defined in one judgment⁹⁴ as meaning that “the acting person takes seriously into consideration the possibility for an outcome to occur, counts on this occurrence and accepts it”. This judgment also stated, “It is not necessary for the perpetrator to approve of the outcome”. Such a definition was also confirmed for a recklessness judgment concerning a fatal road traffic offense⁹⁵. The notion of acceptance was specified in another judgment concerning a fatal road traffic offense⁹⁶ stating that for recklessness to be assumed, “it must be proven that the risk of the danger incurred was so high that it is only reasonable to expect the perpetrator to have foreseen it and accepted it”. In yet another judgment⁹⁷, conscious

⁹¹ FF 1999 1808-1809 N. 212.21 ; Graven & Sträuli (1995), 207 ; Killias (2001) 445 N. 321 et 47 N. 325

⁹² FF 1999 1808-1809 N. 212.21

⁹³ ATF 125 IV 242 c. 3c, Journal des Tribunaux 2002 IV 46 ; ATF 119 IV 1 c. 5a, Journal des Tribunaux 1994 IV 157

⁹⁴ ATF 96 IV 99 ; 103 IV 65

⁹⁵ ATF 130 IV 58

⁹⁶ TF, 6B_519/2007 of January 29th 2008

⁹⁷ 6S.114 2005 of March 28th 2006

negligence was rejected in favour of recklessness with the argument that the perpetrator showed a total indifference as to whether the risks related to his actions would lead to a harmful outcome. The unlawful outcome was afforded less value by the perpetrator than the objectives pursued by his conduct. The perpetrator's hopes for a strike of luck to avoid such outcomes were thus not a sufficient reason to conclude that he "only" acted out of conscious negligence. After that, the Swiss Federal Court showed less enthusiasm at pronouncing recklessness verdicts for fatal road traffic offenses and decided systematically for negligence verdicts instead (Jeanneret, 2009). For example, in a case where a person was speeding in a curve, lost control of his car and collided into a pillar, killing his 13-year-old nephew who was his passenger, an initial cantonal judgment of recklessness was quashed by the Federal Court in favour of a negligence decision⁹⁸.

Let us also mention that at the cantonal level, a tendency to reject recklessness in favour of negligence has been observed in recent judgments⁹⁹. This cantonal tendency was also supported by a Federal Court decision that confirmed a negligence verdict, by rejecting a reasoning implying recklessness. One should also point out a recent decision made by the Federal Court in which a person who caused fatal road traffic offense was condemned for both the offenses of negligent homicide and endangering a person's life. Let us add that each offense concerned a different victim. The concurrent consideration of both these offenses allowed the Court to impose a harsher sentence on the offender, without making use of the somewhat controversial qualification of recklessness. The Swiss Federal Court demonstrated, thus, an acknowledgment of the increasing difficulties it was facing in assimilating a dangerous driver to a murderer by using a qualification, which implies that the actor accepted the eventuality of a fatal outcome (recklessness)¹⁰⁰.

However, let us mention a very recent decision that was made by the Federal Court¹⁰¹ and which contradicts this new trend favouring negligence ascriptions. This concerns a driver who made a dangerous overtaking manoeuvre, which resulted in his losing control of the car and colliding with another car. His girlfriend who was his passenger, as well as the driver of the other car died. This cantonal court had pronounced a recklessness homicide verdict against the perpetrator. This decision was confirmed by the Federal

⁹⁸ TF, 6B_519/2007 of January 29th 2008

⁹⁹ C.Cass./GE, ACAS 73/09, decision of the district court of Zürich of November 24th 2009 (cited in 6B_183/2010)

¹⁰⁰ See Le Temps, Mai 15th 2010. See also Abo Youssef (2010).

¹⁰¹ 6B_168/2010 of June 4th 2010

Court. This decision was motivated by the argument that the perpetrator could not have ignored that he was risking his passenger's life and other's lives by speeding on a sinuous road.

The prominence of recklessness decisions in recent court decisions concerning fatal road traffic offenses may also be linked to the fact that such a label puts a strong and explicit emphasis on the blameworthy nature of such harmful behaviours. Recklessness, unlike negligence, entails some element of bad attitude, malicious behaviour or bad faith. Such terms, as “disregard”, “total indifference”, “accepting the possibility of fatal outcomes”, are quite illustrative of the moral tone of recklessness. Moreover, during recent trials pertaining to fatal road traffic offenses, prosecutors have been persistently justifying the need for recklessness verdicts, through the media, by invoking motives such as “the need for harsher sentences towards people who consider roads like racing tracks”, “he knew that he was taking a colossal risk, but he overlooked it in favour of an egotistic pleasure of overtaking”¹⁰², “such a judgment will finally provide a strong signal to mad drivers”¹⁰³. The moral tonality of such justifications for harsher sentences, using recklessness qualifications, is quite perceptible. This has also been observed by Rapp (2008) who suggests, “Courts are applying a sort of moral intuition in drawing the lines between recklessness and other types of conduct”. It is noteworthy to know that this point of view was already highlighted in 1988 in Switzerland in a virulent critique of the first judgment of recklessness for a fatal road traffic offense¹⁰⁴. This analysis had emphasized the Court's explicit reference to “a suicidal person driving a living bomb” who had been described as “acting out of egoistic motives and of the desire to impress his girl-friend”, when justifying the verdict and sentence imposed to the offender. These critiques are also valid in current analyses of judgments for fatal road-traffic offenses. Abo Youssef (2010) recently made the observation that intention is increasingly more often attributed than established in such cases. He also suggests that a tendency to validate criminal policy and public feelings of right and wrong could be increasingly guiding such judgments. Given the underlying moral tone in recklessness judgments, one can wonder whether it reflects

¹⁰² Statement made by Daniel Zappelli, the general prosecutor for the canton of Geneva, during a trial related to a fatal road traffic offense, recounted in the June 11th 2008 edition of *Tribune de Genève*.

¹⁰³ Interview of Eric Cottier, general prosecutor for the canton of Vaud, September 14th 2006

¹⁰⁴ JdT 1988 IV 130

ordinary reasoning of reckless conduct. In other words, do ordinary people distinguish between negligent conduct and reckless conduct in terms of different levels of moral responsibility?

1.2. The limit between negligence and recklessness in ordinary reasoning about moral responsibility

Research shows that people generally seem to have a correct understanding of the concept of intentionality and its relation to negligence and responsibility. Intentionality is identified as an important precursor of responsibility (Alicke, 2000; Schlenker, Britt, Pennington, Murphy & Doherty, 1994; Weiner, 1995a). Perceived intention has been suggested to have a mediating role in aggressive behaviours or judgments concerning responsibility, blame or sanction (Crick, 1995; Shaver, 1985; Shultz & Wright, 1985). Intentionality ascriptions yield higher ratings of responsibility than negligence ascriptions (Shultz & Wright, 1985). Ordinary reasoning can also detect and make a distinction between different levels of intentionality (Finkel & Groscup, 1997; Schultz et al., 1981). For example, higher responsibility ascriptions have been observed when people judge a situation describing an act of recklessness (commission of an act while ignoring deliberately and knowingly the probability of harmful consequences), than when they assess a situation describing an act of negligence.

Furthermore, most people seem to distinguish pretty well between an intentional act and an unintentional act and are consensual as to the commonsense notions they use to decide if an act is intentional (Malle & Knobe, 1997). They also seem to make a distinction between intention and intentionality in terms of their judgments of responsibility and blame, with harsher judgments for situations where the intentionality of the act is clear than for situations where there was only an intention, but the act in itself was accidental (Malle & Nelson, 2003). An example of a situation in which there is only intention could be when X wants to kill Y with a gun, takes the car to drive to location where Y lives, Y is walking on the street near his house without paying attention to the traffic and X accidentally runs over this person.

However, let us add that recklessness may be difficult to ascribe to people's behaviours in ordinary reasoning, because it may not correspond to their subjective appreciation of the circumstances of their offense (Rapp, 2008). Specialists such as Jeanneret (2009), express, in that sense, their unease with the characterization of fatal road traffic offenses as amounting to recklessness in these terms. In the light of the legal system's struggle to define recklessness and the fine limit separating it from negligence in the specific case of fatal road traffic offenses, the complexity of cognitive processes involved in such evaluations must be considered (Cunningham, 2008; Rauschenbach, 2009). The concept of negligence may be more appropriate to characterize such situations than recklessness, because it implies an incorrect appreciation of the risks related to a given conduct, without involving an element of intent. Indeed, it is highly improbable that a person is aware of and disregards the strong probability of a specific risk of harmful outcomes from happening (Rapp, 2008). It is instead more probable, as suggested by Rapp (2008), that "a person might unreasonably disregard the risk due to over-optimism, quick decision-making or instinct" and, hence, demonstrates negligence. Behavioural law and economic research findings (Parisi & Smith, 2005) concerning human decision making indicates indeed that human beings are not quite as capable of consciously disregarding known risks as the legal recklessness concept seems to represent it. Over-optimism biases and availability heuristics behavioural traits (Jolls, 2005) indicate that people may tend to grossly underestimate the level of risk their conduct could pose. This does not mean that human beings are not capable of appreciating risk, but it certainly calls into question the accuracy or preciseness of this appreciation.

This discussion has demonstrated the difficulties and contradictions in defining the fine line between recklessness and conscious negligence when judging of responsibility for fatal road traffic offenses in Swiss courts. This raises the noteworthy question as to whether ordinary people understand what legal definitions of conscious negligence and recklessness mean in terms of responsibility and whether they differentiate between these two qualifications when attributing responsibility for fatal road traffic offenses. Given

that a person who is found guilty of recklessness incurs a minimum of five years of imprisonment, compared to negligence which is liable to up to three years of prison, understanding whether the legal subtleties involved in both negligence and recklessness ascriptions are apprehended by ordinary reasoning is warranted.

This study aimed therefore at examining how commonsense reasoning apprehended the difference between conscious negligence¹⁰⁵ and recklessness and whether ordinary conceptions correspond to legal reckonings on this matter. Furthermore, the assumption that responsibility entails a moral and a legal dimension was partly confirmed in the previous study concerning negligence. This theory will be tested again in this study for a negligent behaviour in comparison to more intentional action. This will enable us to determine whether legal and moral dimensions are more clearly highlighted when participants are confronted to a situation in which the legal liability of the agent is higher due to the existence of an element of intent. Using the same vignette as in the previous study, the distinction between negligence and recklessness was manipulated with formulations containing legal criteria that correspond to an act of negligence or an act of recklessness.

Finally, the relationship between controllability and moral and legal responsibility dimensions will also be the object of a close examination in this study. Controllability-related measures were more related to moral responsibility measures than to legal responsibility measures in the previous study and blame is presented as highly dependent on evaluations of control, in Alicke's (2000) culpable control model. The role of controllability with regard to both the moral and legal dimensions of responsibility should thus also be considered.

¹⁰⁵ For the purpose of this study, we will hereafter refer to conscious negligence by using simply the term "negligence".

1.3. Hypotheses

Moral and legal responsibility dimensions, controllability and the effect of the legal level of culpability

In accordance with the findings of the previous study, we expect respondents' representations of responsibility to distinguish between a moral and a legal dimension. Moral and blame-related measures should thus be associated to each other and distinguished from measures of rational criteria related to legal responsibility. Like in the previous study, participants' responses should also distinguish moral and legal dimensions from controllability-related measures. This hypothesis leads to three specific predictions.

First, since the manipulation of levels of culpability in this study is based on rendering salient legal cues pertaining to either negligence or recklessness, it is expected to only affect the legal dimension of responsibility and, specifically only intentionality. Indeed, as discussed previously, legal reasoning contends that conscious negligence and recklessness imply both consciousness, but differ in terms of intent, since the latter entails an element of intent, whereas the former does not. Thus, participants' ratings on measures related to the rational criteria of intentionality should differ depending on whether the agent's behaviours are negligent or reckless, whereas consciousness ratings should be similar no matter the condition. Thus, intentionality should be rated higher in the condition of recklessness, compared to the condition of negligence, whereas consciousness will not be affected by the condition. Since recklessness and conscious negligence are related to different legal qualifications, which are respectively, intentional homicide and negligent homicide, we expect participants' ratings of these qualifications to be affected by the level of culpability. Thus, participants should rate intentional homicide as higher in the recklessness condition compared to the negligence condition, whereas they will rate negligent homicide as higher in the negligence condition, compared to the recklessness condition.

Second, the moral responsibility dimension is not expected to be influenced by the manipulation of level of responsibility. Thus, participants' ratings of blameworthiness,

responsibility for the death of the victim and accountability before the justice system should be similar, whether they correspond to the negligence or the recklessness situation. Moreover, in line with the previous study's results, we expect moral responsibility to be related to negative emotions, as well as punitive responses, whereas the legal responsibility dimension should not be related to such factors. Moreover, since blame was associated to a tendency to disagree with external explanations for events (external factors) and to agree with explanations related to norm-related shortcomings that affect individuals (internal factors) in the previous study, we expect the moral dimension of responsibility to be also related to the tendency to favour internal explanations (internality as a disposition). Let us add that we do not expect factors, such as negative emotions and retributive responses, which should be related to moral responsibility, to be affected by the level of responsibility condition.

Third, the level of legal responsibility is purported to have also an impact on measures related to controllability, since one of the conditions in which participants had to respond to was a situation of negligent conduct. Consequently, we expect participants to rate higher negligence in the negligence condition, compared to the recklessness condition. Ratings of the precautions necessary to avoid such harmful outcomes, as they were related to negligence assessments in the previous study, should be influenced too. Since recklessness, in legal reasoning, is related to the idea of "knowing about a risk, accepting it and acting anyway", the measure as to whether the agent could have acted otherwise may be rated higher in the recklessness condition, compared to the negligence condition. Moreover, in line with the findings in the previous study and Alicke's culpable control model, we expect controllability-related measures to be more related to moral responsibility ascriptions than to legal responsibility judgments.

Effect of type of study and level of culpability on moral and legal responsibility dimensions

In line with the findings of the previous study, we expect law students to be more sensitive to the rational cues used to determine legal responsibility, compared to psychology students. Three sets of predictions result from this assumption.

As in the previous study, concerning the first part of the questionnaire, law students should identify more accurately the different dimensions and levels related to rational criteria of consciousness, voluntariness and intentionality, than psychology students. Moreover, as observed in study 1, they should be also more sensitive to ambiguous dimensions of consciousness and intentionality than psychology students are. They should, thus, be less likely to assimilate to a conscious action the measure that “Anne threw the dart out of her window, but after having committed that act, she does not understand what happened”, compared to psychology students. They should also agree less that the measure “Anne was intending to throw the dart out of the window, but then decided against it, but slipped and the dart fell out of the window,” reflects intentional action, compared to psychology students. Finally, law students should be more sensitive to the three specific assessments of consciousness, voluntariness and intentionality that were added in this study concerning Anne’s actions, compared psychology students. Thus law students, even though the situation describes an accidental event, where no intent or consciousness can be inferred from the scenario, should attribute more consciousness, voluntariness and intentionality to Anne’s actions, compared to psychology students. This assumption is made because law students will be more likely to evaluate these criteria in terms of the possible legal liability incurred by Anne’s actions.

Law students are also expected to differentiate more clearly between the salient legal cues corresponding to each level of culpability that is manipulated than psychology students. They should thus rate these two conditions according to the level of culpability and its corresponding rational criteria. This means that law students are expected to attribute more intentionality to the perpetrator in the recklessness condition than in the negligence condition, because they are expected to be sensitive to the legal cues that are

rendered salient for each level of culpability. In the same vein and following the same reasoning, law students should also attribute more negligence in the negligence condition, compared to the recklessness condition. The psychology students, to the contrary, should not differentiate between both levels of culpability in terms of their ratings of intentionality and negligence.

Finally, the previous study provided evidence for the assumption that psychology students may be less sensitive to rational criteria and more susceptible to demonstrate morally-tainted patterns of response. Consequently, we predict that psychology students may show higher ratings on moral responsibility measures, than law students will. They could also be more likely to relate moral responsibility to other related punitive and emotional dimensions, compared to law students.

2. Method

2.1. Participants

177 participants were included in this study, out of which 82 1st year psychology students (Median age = 20 years old; 74 female and 8 male) and 95 2nd year law students (Median age = 21 years old; 59 female and 36 male) were recruited during their ex-cathedra classes at the University of Lausanne. They were randomly assigned to one of the two conditions manipulated in this study, as demonstrated in Table 2.1 below. The same instructions as in the previous study were given to the participants prior to this experiment.

Table 2.1.: Frequencies by type of study and by culpability condition

Culpability condition	Type of study		Total
	Psychology	Law	
Recklessness	36	53	89
Negligence	46	42	88
Total	82	95	177

2.2. Procedure

Questionnaire part 1: internality-externality tendency scale and measures concerning representations of consciousness, voluntariness and intentionality

Internality-externality scale

A scale was added to measure participants' tendency to internality and externality (see Appendix 2a). This scale includes 16 items that were originally comprised in the internality and luck subscales of the Levenson IPC control scale translated in French (Rossier, Rigozzi & Berthoud, 2002).

The rationale behind adding these internality and externality subscales is explained by the results yielded in the previous study concerning the measure of different explanatory factors for the situation. Disagreement with external factors and favouring factors related to the individual were found to be strong predictors of moral responsibility ratings. However, the results of the previous study were based on participants' ratings on a scale, entailing items about different explanatory factors, that was newly created for this study and thus exploratory. Although the dimensions that were yielded by a factor analysis of the items of this scale showed generally acceptable alpha index values, this scale may not be very reliable, in terms of the dimensions it wants to measure (external explanations, victim-blaming explanations and individual explanations), because it was never tested before this study.

We thus decided to use a more widely used scale to measure participants' agreement with external and internal explanations for events and used the items related to these explanations that were included in the internal and external subscales of the Levenson IPC control scale. As our objective was to verify the link between the tendency to internality and externality and respondents' moral and legal responsibility ascriptions, we needed to create two global ratings, one for responses for internality items and the other for externality items. When used the following procedure to create these two ratings. A factor analysis of the items of the internality and externality scale yielded 2 factors (29.75% total variance explained): Internality (15.47%) and Externality (14.28%). Mean

ratings for each factor were then computed from the corresponding items. We obtained, thus, two mean ratings: *Minternal* ($\alpha=.601$) and *Mexternal* ($\alpha=.617$).

Measures of the representations of consciousness, voluntariness and intentionality

The vignette used in study 1 in the first part of the questionnaire was modified for this study to increase its validity in terms of plausibility. This vignette was also intended to be as neutral as possible in terms of consciousness, voluntariness and intent, in order to measure the respondents' general understanding of the different dimensions of these three criteria. It had, thus, to be perceived by the participants as an accident and the situation had to be described in such a way that it was free from any element of intention or consciousness of the probability of a harmful outcome. Thus, the vignette was modified to describe the following situation:

Anne is playing with darts in her apartment and the target she is aiming at is next to the window that she left open because of the heat. While throwing a dart, she misses her target and the dart goes through the window and hurts a passer-by walking on the sidewalk.

The scales measuring, in general terms, different dimensions of consciousness, voluntariness and intentionality, which were used in the previous study, were included without modifications (see Appendix 1a). However, three items were added to evaluate more explicitly and specifically the extent to which participants, after having read the situation, assessed the voluntariness of Anne's acts, her intentionality and her consciousness of the risks she was taking (see Appendix 2b).

Questionnaire part 2: manipulation of levels of culpability (negligence vs. recklessness)

The manipulation of levels of culpability was done using the same vignette of the car-crash incident as the one used in the previous study. Half of the participants of each field of study had to then rate this scenario in either a negligence condition or a recklessness

condition. The core content of the scenario was the same in both conditions except for one paragraph that was different depending on the condition (see Appendix 2c). In the *negligence condition*, the perpetrator was described as “knowing that what he wants to do may be dangerous, because he can lose control of his car and cause an accident”. In the *recklessness condition*, the perpetrator was described as “knowing that the chances of losing control of his car and causing an accident are high, but wanting to reach his goal at all costs”.

All scales used in this part of the questionnaire were identical to the ones used in the previous study (see Appendix 1c).

Questionnaire part 3: different life experience measures and socio-demographic questions

This part included the same measures concerning topics of discussions, topics of interest discussed in the media and life experiences as a victim or a perpetrator, as well as socio-demographic questions that were used in the previous study (see Appendix 1d). The measure of punitive aims that was used in the previous study was not included in this study.

3. Results

In order to test our hypotheses, the following analyses were carried. We first used a factor analysis in principal components to highlight respondents’ representations of rational criteria for legal responsibility, as well as their representations of moral and legal responsibility, and controllability. A MANOVA was then carried out in order to test the effect of the legal culpability condition and the type of study on moral and legal dimensions of responsibility, as well as measures related to the qualifications of the event. Interaction effects between the type of study and the culpability condition, as well as main effects of study and culpability were examined. Moreover, a one-way ANOVA was also carried out to investigate the effect of type of study on measures related to

rational criteria for legal responsibility. The effect of condition was not considered for these measures, since they were evaluated in the first part of the questionnaire, before the car-crash scenario manipulation. Regression analyses were then carried out to assess the role of different predictors for moral and legal responsibility dimensions, as well as controllability. Finally, correlational analyses using the Pearson method, as well as partial correlations were then used to examine the relationships between the responsibility dimensions and some of their relevant correlates, for each experimental group formed by the combination of type of study and culpability condition.

3.1. Manipulation check

The same finding, as in study 1, concerning the equal plausibility ($F(1,177) = 1.15$; *ns*) and frequency ($F(1,177) = .23$; *ns*) of vignettes between conditions was observed. One can once again assume that the wording used to manipulate the level of responsibility does not affect the credibility and frequency perceptions concerning the situation evaluated in this study.

3.2. Existence of overlapping dimensions of responsibility related to moral and legal criteria

3.2.1. Participants' representations of rational criteria for legal responsibility

In line with the results of the previous study, we make the assumption that a legal dimension to responsibility exists in ordinary reasoning and that this dimension depends on three rational criteria of consciousness, voluntariness and intentionality. The prediction in this study is thus similar to the one made in the previous one, except for the fact that the vignette on which these measures are based was modified for this study. Consequently, a first analysis aimed at verifying whether participants also identify correctly the rational criteria that are entailed in the legal dimension of responsibility and the underlying meanings of these criteria for this modified vignette.

A factor analysis in principal components with the Varimax rotation method was carried out on all items related to the criteria of consciousness, voluntariness and intentionality. Three factors explaining 65.45% of the total variance were highlighted. The Bartlett's test of Sphericity was significant ($\chi^2(78) = 1163.85, p <.001$) and the KMO was satisfactory (0.82). The items included in the three resulting factors and their corresponding saturations are displayed in Table 2.2. The first factor (33.14%) comprised all items related to the different dimensions of consciousness and intentionality and is named **CI**. The second factor (22.58%) included all the items relating to voluntariness. We will refer to it as **Vol**. Finally, the third factor (9.74%) encompassed the items related to ambiguous intentionality and consciousness. We will name it **Amb**. As already observed in the previous study, the two ambiguous measures relating to consciousness and intentionality are separated in participants' representations of the other dimensions of consciousness and intentionality (which are assembled into one factor in this study). The ambiguous consciousness measure and the ambiguous intentionality measure show lower ratings than the other items, which indicates that they are less constitutive of respectively, consciousness and intentionality, in participants' representations. All voluntariness measures are included in a same factor, thus participants clearly distinguish between voluntariness, on the one hand, and consciousness and intentionality, on the other hand.

Table 2.2.: Principal component analysis of the scales pertaining to the different dimensions of consciousness, voluntariness and intentionality

Scales	Saturations*			Mean ratings	S.d.**
	CI	Vol	Amb		
Anne thought about her act before committing it and threw the dart knowing that her actions could harm someone	.836	-.050	.140	4.07	1.36
Anne's one and only aim was to hurt someone by throwing the dart out of the window	.826	-.112	.155	4.32	1.44
Anne wanted to hurt someone by throwing the dart out of the window	.818	-.112	.278	4.10	1.55
Anne thought about her act and its consequences before committing it	.801	-.083	-.028	3.98	1.31
Anne knew before throwing the dart that her actions were liable for punishment by the law	.777	-.025	-.207	3.53	1.39
Anne knew that, by throwing a dart out of the window, the odds were great to harm someone	.728	.037	.221	3.97	1.16
Anne knew that the dart she threw could fall on someone	.649	.076	-.093	3.77	1.10
Anne was motivated to throw this dart		.856	-.087	3.13	1.30
Anne acted without the intervention of any external force	-.100	.855	-.146	3.39	1.27
Anne wanted to throw this dart	.078	.851	.009	3.32	1.43
Anne acted freely without any physical or moral constraint from others	-.136	.829	-.034	3.44	1.32
Anne was intending to throw the dart out of the window, but then decided against it, but slipped and the dart fell out of the window	.120	-.128	.609	2.03	1.18
Anne threw the dart out of her window, but after having committed that act, when she thinks about it she does not understand what happened	-.104	.027	-.802	2.41	1.03

*Saturations that are higher than .30 are displayed in bold

** S.d. stands for standard deviation value

However, even though participants associate all dimensions of intentionality and consciousness together, a more detailed examination of their mean ratings, depending on their type of study, indicates that, like in the previous study, law students are more likely than psychology students to correctly perceive gradations in levels of consciousness and intentionality (see Table 2.3.). T-test analyses carried out between these different measures for each student group show quite clearly these differences.

Law students give significantly higher ratings to “having as the one and only aim to hurt someone” compared to “wanting to hurt someone” ($t(94) = -2.04, p < .05$) and compared to “knowing that one could hurt someone” ($t(94) = 4.47, p < .001$). They also rated “wanting to hurt someone” higher than “knowing that one could hurt someone” ($t(94) = 2.76, p < .008$). Finally, they gave higher evaluations to “knowing that the odds were great to harm someone” than to “knowing that one could hurt someone” ($t(94) = -2.12, p < .04$), but rated the former lower than “having as the one and only aim to hurt someone” ($t(94) = 3.18, p < .003$). No significant differences were found between the rating of “wanted to hurt someone” and “knowing that the odds were great to harm someone” ($t(94) = 1.56, ns$). Thus, law students’ representations of the different dimensions of intentionality are graded in terms of the extent to which they constitute intent in legal reasoning. “Having as the one and only aim to hurt someone” is the measure that is the most assimilated to intentionality, followed by “wanted to hurt someone” and by “knowing that the odds were great to harm someone” that are considered to reflect the same degree of intentionality. Finally, one finds “knowing that one could hurt someone” at the lower end of the continuum, which is considered as less intentional than “wanting” or “knowing that the odds are great”.

As for psychology students, certain significant differences between intentionality measures were observed, which show that they also perceived some of the gradations between these measures. They showed higher ratings for “having as the one and only aim to hurt someone” compared to “wanting to hurt someone” ($t(81) = -2.43, p < .02$) and compared to “knowing that one could hurt someone” ($t(81) = 3.11, p < .004$). Moreover, they also rated higher “knowing that the odds were great to harm someone” compared to “knowing that one could hurt someone” ($t(81) = -2.04, p < .05$)

Table 2.3.: Mean ratings for consciousness and intentionality measures for law and psychology students

Measures		Law Students		Psychology students	
		Mean	S.d.*	Mean	S.d.*
Consciousness Items	Thinking about one's act and its consequences before committing it	4.04	1.32	3.84	1.31
	Thinking about one's act before committing it and acting while knowing that one's actions are harmful	4.17	1.29	3.93	1.44
	Knowing before acting that one's actions are liable for punishment by the law	3.66	1.38	3.35	1.40
intentionality Items	Having as one and only aim to hurt someone	4.45	1.31	4.12	1.57
	Wanting to hurt someone by one's actions	4.25	1.45	3.90	1.64
	Knowing that the odds were great to harm someone by one's actions	4.04	1.15	3.87	1.17
	Knowing that one's action could harm someone	3.84	1.07	3.67	1.14

As for the consciousness dimension, one should mention that both law and psychology students rated “thinking about one’s actions before committing them and behaving knowingly” ($t_{law} (94) = 3.93, p <.001$; $t_{psy} (81) = 4.52, p <.001$) and “thinking about one’s act and its consequences” ($t_{law} (94) = 3.09, p <.004$; $t_{psy} (80) = 3.69, p <.001$) as more constitutive of consciousness than “knowing that one’s actions are liable for punishment by the law”. Like in the previous study, no significant differences were found between respondents ratings of “thinking about one’s actions before committing them and behaving knowingly” and “thinking about one’s act and its consequences” ($t_{law} (94) = -1.31, ns$; $t_{psy} (80) = -0.60, ns$).

3.2.2. Participants’ representations of the moral and legal dimensions of responsibility

The previous findings demonstrated that respondents, especially law students, have a graded understanding of the different levels of consciousness and intentionality that reflects an accurate representation of the different levels of legal responsibility. The question is now whether they also distinguish between the moral and legal dimensions of responsibility when judging of a situation in which different levels of culpability are manipulated. Since the previous study provided some evidence for this assumption when

manipulating levels of negligence, we will try to replicate this finding with more marked levels of culpability.

A factorial analysis in principal components with the Varimax rotation method of all responsibility-related items was conducted and yielded three factors accounting for 57.13% of the total variance (see Table 2.4.). Factor 1 (21.71%) included all the items related to moral responsibility and is referred to as **Moral**. Factor 2 (18.61%) brings together all items related to controllability and is named **Control**. Factor 3 (16.80%) entailed all rational criteria of legal responsibility and is called **Legal**. The Bartlett's test of Sphericity was significant $\chi^2(45) = 360.52, p <.001$ and the Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO) was satisfactory (0.756).

These findings, in conformity with the previous study, demonstrate even more clearly that participants differentiated between, on the one hand, rational criteria such as consciousness, voluntariness and intentionality, and on the other hand, evaluations that are more related to moral dimensions of responsibility such as blameworthiness, being responsible for the death of someone and accountability before justice. This analysis also yielded a control factor, like in the previous study, which indicates that participants associated evaluations that are clearly related to controllability, such as acting carelessly, not taking all the necessary precautions to avoid a harmful occurrence or the judgment that the agent could have acted otherwise. One should mention here that the measure concerning voluntariness, that was associated in the previous study to the Legal factor, was here strongly associated to the Control factor. Thus participants' assimilated taking freely the decision to drive knowing that this could lead to an accident more to other controllability measures than to a rational criteria of legal responsibility. Moreover, contrary to the previous study, participants did not associate negligence to the controllability dimension, but opposed their ratings of negligence to those concerning consciousness and intentionality in the Legal factor. It is to be noted that for some items, saturations higher than .30 were sometimes observed for two different factors. However, in these cases, we chose to take into account the highest value of saturation to decide to which factor the item corresponded to. These cases only concerned two items, namely "consciousness" and "could have acted otherwise".

Table 2.4.: Principal component analysis of the scales pertaining to the different measures related to responsibility

Scales	Saturations*			Mean ratings	S.d.**
	Moral	Control	Legal		
Responsibility for the death of the victim	.837	.090	.009	4.19	0.80
Blameworthiness	.782	.202	-.060	4.55	0.73
Accountability before justice	.647	.216	.266	4.46	0.76
Voluntariness	-.031	.662	.257	4.58	0.75
Acted very carelessly	.283	.661	-.138	4.70	0.67
Did not take the necessary precautions to avoid the harmful outcome	.223	.652	.006	4.47	0.86
Could have acted otherwise	.451	.516	.016	4.56	0.81
Intentionality	.030	.181	.804	1.89	1.14
Negligence	.057	.282	-.782	3.94	1.30
Consciousness	.319	.297	.511	3.44	1.27

*Saturations that are higher than .30 are displayed in bold

** S.d. stands for standard deviation value

3.3. Effect of the level of culpability on legal dimensions of responsibility as a function of the type of study of respondents

Another prediction of this study was that psychology students should be less sensitive to the manipulation of culpability levels than law students are, since these nuances in culpability are based on legal standards that may not be perceptible for perceivers who were not trained to identify such rational cues. Results yielded in this study point towards this assumption. A 2 (type of study) x 2 (culpability condition) MANOVA was carried out and produced a significant interaction effect between culpability condition and type of study for the negligence rating ($F(1,177) = 4.50; p < .04, \eta = .03$), the intentionality evaluation ($F(1,177) = 5.41; p < .03, \eta = .03$) and the intentional homicide qualification ($F(1,177) = 8.62; p < .005, \eta = .05$).

In conformity with our hypotheses, law students differentiated between the two levels of culpability in their ratings of negligence and intentionality, whereas psychology students were less likely to make this distinction (see Table 2.5.). Law students in the recklessness condition agreed more than law students in the negligence condition that the agent intentionally caused the accident, whereas psychology students did not evaluate differently intentionality depending on the condition in which they were. Moreover, law students in the negligence condition attributed more negligence than law students in the recklessness condition did, whereas psychology students ascribed more negligence to the

agent than law students did, whatever the condition they were in. These findings point clearly towards the conclusion that law students distinguish between recklessness and negligence, in terms of their intentionality and negligence ratings, whereas psychology students do not make such a distinction.

Another finding that also supports the prediction of law students' higher sensitivity to legal cues related to both culpability conditions concerns the fact that law students in the recklessness condition agree more with the intentional homicide qualification than law students in the negligence condition, whereas psychology student show similar disagreement levels with this qualification in both conditions (see Table 2.5.).

Table 2.5.: Mean ratings for legal responsibility measures and qualifications by type of study and culpability condition

Measures	Recklessness condition				Negligence condition			
	Law	S.d.*	Psych.	S.d.*	Law	S.d.*	Psych.	S.d.*
Consciousness	3.85	1.12	3.22	1.25	3.64	1.28	2.96	1.28
Intentionality	2.60	1.32	1.36	0.64	1.95	1.17	1.44	0.69
Voluntariness	4.76	0.43	4.50	0.91	4.62	0.79	4.41	0.83
Negligence	3.28	1.60	4.33	1.01	4.05	1.23	4.30	0.84
Intentional homicide	2.43	1.52	1.33	0.76	1.45	1.13	1.35	0.71
Accident	2.92	1.41	3.69	1.06	3.62	1.46	3.78	1.07

** S.d. stands for standard deviation value

3.4. Effect of legal training on representations of rational criteria of consciousness, voluntariness and intentionality

Another hypothesis in this research was that law students, given their legal training, should be more attuned to rational criteria for ascribing legal responsibility than psychology students. Findings concerning participants' representations of rational criteria of consciousness, voluntariness and intentionality, as measured in the first part of the questionnaire, and the predicted heightened sensitivity of law students for such criteria show mixed results.

In contradiction to our predictions and to the findings of the previous study, law students did not show higher ratings on the measures related to the different dimensions of consciousness and intentionality than psychology students did. In other words, law

students and psychology students had similar views as to the extent to which different levels and forms of awareness and intent reflected respectively, consciousness and intentionality. They also, contrary to our expectations, did not rate the ambiguous intentionality and consciousness items lower than psychology students did.

However, a significant main effect for type of study for the three specific measures pertaining to the extent to which participants agreed that Anne's actions reflected consciousness, were intentional and were voluntary. Significant differences on these three specific measures were observed between law students and psychology students. Law students agreed ($m_{vol}=2.35$; $m_{int}=1.98$; $m_{cons}=2.72$), more than their psychology counterparts ($m_{vol}= 1.76$; $m_{int}=1.56$; $m_{cons}=2.17$), that the agent's actions are voluntary ($F(1,177) = 10.02$; $p <.003$, $\eta=.05$), that the agent's actions are intentional ($F(1,177) = 7.15$; $p <.009$, $\eta=.04$) and that the agent was conscious of the risks taken ($F(1,177) = 9.19$; $p <.004$, $\eta=.05$).

3.5. Effect of legal training on moral and legal dimensions of responsibility

We had also made the hypothesis that psychology students should be less sensitive to rational criteria, compared to law students, and could be more susceptible to respond to moral and emotional dimensions when ascribing responsibility. Some of the following results point towards these assumptions.

In addition to the interaction effects discussed previously, significant main effects of type of study were observed for the intentionality ratings, as well as for the intentional homicide qualification (see Table 2.5.). Moreover, significant main effects were also highlighted for the consciousness rating. More specifically, law students ($m_{consc}= 3.76$; $m_{intent}=2.32$) agreed more than psychology students ($m_{consc}= 3.07$; $m_{intent}=1.40$) that the agent was aware that driving fast in a bend could lead to the death of the victim ($F_{consc} (1,177) = 13.73$; $p <.001$, $\eta=.07$) and that the agent caused the accident intentionally ($F_{intent} (1,177) = 33.42$; $p <.001$, $\eta=.16$). Moreover, law students ($m=1.34$) agreed significantly ($F(1,177) = 12.63$; $p <.001$, $\eta=.07$) more than psychology students ($m=1.94$) to qualify the event of intentional homicide.

Let us mention here a main effect of type of study on negligence ratings and the qualification of accident, which indicates that psychology students differed from law students on these ratings (see Table 2.5.). Psychology students ($m=4.53$) tend significantly ($F(1,177) = 13.51; p <.001, \eta=.07$) to agree more than law students ($m=3.97$) that the agent acted negligently, whatever the level of culpability. They ($m=3.74$) also tend more ($F(1,177) = 6.86; p <.02, \eta=.04$) to qualify the situation of “accident” in all conditions, compared to law students ($m=3.23$).

As for the prediction that psychology students may show higher moral responsibility ratings than law students no matter the condition in which they are, findings showed partial support for it. Contrary to our assumptions, psychology students’ moral responsibility mean ratings (Moral¹⁰⁶) were not higher, but significantly ($F(1,177) = 8.29; p <.005, \eta=.04$) lower ($m=4.26$), than law students mean ratings ($m=4.52$). However, as shown in Table 2.6. displaying the mean ratings for each moral responsibility item included in Moral, this unexpected result could be mainly due to significant ($F(1,177) = 13.59; p <.001, \eta=.07$) differences between law and psychology students, in terms of ratings of whether the agent was accountable before justice. Law students were more likely to consider that the agent was accountable before justice than psychology students did. Yet, as also shown in Table 2.6., one can note that psychology students agree significantly ($F(1,177) = 6.10; p <.01, \eta=.03$) more than law students with a measure which was not included in the moral dimension of responsibility¹⁰⁷ and which was related to “publicly denouncing the agent’s acts”.

Table 2.6.: Mean ratings for moral responsibility measures and public denunciation evaluations by type of study and culpability condition

Measures	Recklessness condition				Negligence condition			
	Law	S.d.*	Psych.	S.d.*	Law	S.d.*	Psych.	S.d.*
Responsibility	4.34	0.62	4.03	0.88	4.24	0.82	4.09	0.89
Accountability before justice	4.74	0.44	4.31	0.86	4.55	0.80	4.20	0.83
Blameworthiness	4.64	0.56	4.44	0.81	4.57	0.80	4.50	0.78
Public denunciation	3.30	1.37	3.50	1.14	2.90	1.41	3.67	1.07

** S.d. stands for standard deviation value

¹⁰⁶ A factor analysis of moral, legal and controllability responsibility measures yielded 3 factors (57.13% of total variance explained): Moral (21.71%), Control (18.61%) and Legal (16.80%). Items included in each factor were then computed into a single mean rating: Mmoral ($\alpha=.713$), Mcontrol ($\alpha=.606$) and Mlegal ($\alpha=.477$).

¹⁰⁷ See Table 2.4. p. 163.

Results indicate that psychology students are more likely, compared to law students, to ascribe negligence to the agent's conduct, whatever the level of culpability, to favour the public denunciation of his acts and to qualify the situation as an accident. Law students were, as expected, more likely to favour rational criteria of legal responsibility and to respond accurately to the manipulation of levels of culpability in terms of intentionality, negligence and intentional homicide qualification. However, in opposition with our predictions, law students were also more likely to agree with moral responsibility ratings such as accountability before justice, compared to psychology students. Thus, the only measure related to moral responsibility, which was rated higher by psychology students, compared to law students, is public denunciation.

Findings until now point, overall, towards the conclusion that law students, compared to psychology students, may be more sensitive to legal cues, as well as rational criteria. This means that law students rate more accurately different levels of culpability. Law students, in this study, were also more receptive to moral responsibility ratings, such as accountability before justice, compared to psychology students. Psychology students tend to subscribe more to non-legal concepts, such as public denunciation and qualifications like "accident", and do not distinguish clearly between the two levels of culpability in terms of intentionality and negligence.

3.6. Effect of the culpability condition on moral and legal dimensions of responsibility

Findings only partly confirm the hypothesis that the manipulation of recklessness vs. negligence affected only the legal criteria which corresponded to each level of culpability, for all respondents. Indeed, the hypothesis of a main effect of the culpability condition, in addition to the interaction effect of type of study and culpability condition, was confirmed for the intentional homicide qualification, but was not confirmed for the intentionality and negligence ratings.

A significant main effect of culpability condition ($F(1,177) = 8.13; p < .006, \eta = .05$) was observed for the intentional homicide qualification, whereby participants in the recklessness condition ($m=1.99$) agreed more than participants in the negligence

condition ($m=1.40$) to qualify the situation as an intentional homicide. However, no significant main effects of culpability condition were found for the intentionality and negligence ratings, contrary to our assumptions. Since significant interaction effects were observed previously, this indicates that only law students were more likely to correctly identify the two levels of culpability that were manipulated in terms of the relevant legal criteria of intentionality and negligence they corresponded to. Let us add that, contrary to our predictions, negligent homicide ratings were not affected by this manipulation, as no significant main effect of culpability condition was found for this qualification.

Moreover, in conformity with our predictions, this manipulation did not affect any of the moral responsibility measures. As for factors that are related to the moral dimension of responsibility such as, emotions felt by respondents, as well as the punitive responses that may attenuate the harm done to the victim's family, none were influenced by the level of culpability of the agent either. Yet is also interesting to note that the manipulation affected the non-legal qualification of "accident", since participants in the negligence condition ($m=3.71$) tended more than participants in the recklessness condition ($m=3.24$) to qualify the situation of accident ($F(1,177) = 5.74; p < .02, \eta = .03$).

Finally, contrary to our expectations, the measures of the necessary precautions to take, as well as the evaluation of whether the agent could have acted otherwise, were not affected by this manipulation.

We now have a better understanding of the factors that influence legal responsibility ratings and the role of the type of study on such an influence. Moreover, findings concerning to the absence of effect of the condition on moral responsibility measures and related factors, such as negative emotions and punitive responses, suggest that moral evaluations are not affected by rational factors. We will now turn to further analyses to gain a deeper understanding of the factors underlying moral responsibility and their relationship to legal responsibility. More specifically, since one of the assumptions held in this study, and that was confirmed in the previous study, concerns the role of punitive responses, internal tendencies and negative emotions in blame attributions, as well as the link between level of culpability condition, rational criteria and legal responsibility, we will consider these different influences in the following regressions analyses.

3.7. Moral and legal dimensions of responsibility and their predictors

The objective was to test the influence of negative emotional reactions, of the tendency to internality, of punitive responses, of assessments concerning the qualification the situation, of assessment of rational criteria of consciousness and intentionality, of the field of study and of the condition of level of culpability on legal and moral responsibility. We expected negative emotional reactions, the tendency to internality and the punitive response favouring prison to be associated to moral responsibility, but not to be related to legal responsibility. As public denunciation was related to blameworthiness in the previous study, it was also expected to be a predictor of the moral responsibility dimension. As for the legal responsibility dimension, we anticipated that the type of study, the culpability condition, as well as the assessment of rational criteria of consciousness and intentionality would be significant predictors. However, these latter variables should not predict moral responsibility. Thus, linear multiple regression analyses with the method enter were carried out on mean ratings for moral responsibility (Moral) and legal responsibility (Legal) factors¹⁰⁸ using the above-mentioned factors as predictors. The interaction between type of study and the culpability condition was also introduced given its significant effects on legal responsibility measures and legal qualifications measures highlighted in section 3.3. We assume that this interaction could be a significant predictor of legal responsibility.

For purposes of clarity, we used mean ratings for some predictors, which were computed through the following procedures. For the assessment of rational criteria of consciousness and intentionality, we used the mean rating (*MCI*)¹⁰⁹ corresponding to the CI factor yielded by the factorial analysis of rational criteria for responsibility. To assess the influence of negative emotional reactions, we used *Emoneg*, which was yielded by computing all items of negative emotions into one mean rating¹¹⁰. In order to assess the

¹⁰⁸ A factor analysis of moral, legal and controllability responsibility measures yielded 3 factors (57.13% of total variance explained): Moral (21.71%), Control (18.61%) and Legal (16.80%). Items included in each factor were then computed into a single mean rating: Mmoral ($\alpha=.713$), Mcontrol ($\alpha=.606$) and Mlegal ($\alpha=.477$).

¹⁰⁹ A factor analysis of rational criteria for responsibility yielded 3 factors: CI, Vol and Amb. Items included in each factor were then computed into a single mean rating: MCI ($\alpha=.900$), MVol ($\alpha=.870$) and MAmb ($\alpha=-.291$). See section 3.2.1, p.158-159, Table 2.2. MAmb was not taken into account, given that the alpha for this rating was negative.

¹¹⁰ A negative emotions factor (30.73%) and a positive emotions factor (22.98%) resulted from the factor analysis of the emotions felt (total variance = 53.71%). Thus, the ratings for negative emotions were computed into one mean rating of negative emotions (*Emoneg*, $\alpha=.671$) and the same was done for positive emotions (*Emopos*, $\alpha=.480$).

influence of the disposition to internality, we used the internality mean rating (*Minternal*)¹¹¹. Predictors such as gender, religious affiliation, political orientation, socio-economic status, the participants' life experiences concerning discussions and the media, as well as experiences of being/knowing a perpetrator or a victim, the externality mean rating and the accident qualification were not considered, as none of them were significantly associated to moral or legal responsibility.

A first analysis was carried out using moral responsibility ratings (*Mmoral*) as a dependent variable and all the predictors that were mentioned above. As reported in Table 2.7., *Mmoral* is significantly predicted by the qualification of intentional homicide, by the qualification of negligent homicide, by the tendency for internality, the public denunciation rating and feelings of negative emotions. In line with our assumptions, the tendency for internality, the public denunciation rating and negative emotions ratings were significant predictors of *Mmoral*. Contrary to our assumptions, the moral dimension of responsibility was not predicted by the retributive punitive response of imprisonment. However, *Mmoral* was predicted by the legal qualifications of negligent homicide and intentional homicide, which reflect punitive responses, since they are associated to harsh custodial sanctions. As expected, moral responsibility was not predicted by the assessment of rational criteria of consciousness and intentionality, the negligence condition or the type of study.

A second analysis examined which factors predicted legal responsibility ratings (*Mlegal*) and whether these predictors were different from those related to moral responsibility ratings. As displayed in Table 2.7., *Mlegal* was predicted significantly by the qualification of intentional homicide, being a law student and the tendency for internality. Thus, as anticipated, being a law student was significantly related to *Mlegal*. However, contrary to our expectations, the culpability condition, the interaction between type of study and the culpability condition, and the assessment of rational criteria of consciousness and intentionality were not significant predictors.

¹¹¹ See section 2.2. p. 155-156 for explanations as to how the internality and externality mean ratings were yielded

Finally, controllability-related measures such as carelessness and possibilities of acting otherwise were associated to moral responsibility measures in the previous study, but were included in the controllability dimension in this study. We thus carried out a regression analysis, using the mean rating of controllability¹¹² (Mcontrol) as a dependent variable, to examine whether it was predicted by the same or by different variables than moral responsibility. As indicated in Table 2.7., Mcontrol was significantly predicted by the negligent homicide qualification, by the intentional homicide qualification and the ratings of the different dimensions of rational criteria of responsibility of consciousness and intentionality. Mcontrol shared most of its predictors with Mmoral, but had the intentional homicide qualification in common with Mlegal.

Table 2.7.: Multiple regression analyses: Prediction of moral and legal responsibility as well as controllability mean ratings

Independent variables	Mmoral	Mlegal	Mcontrol
MCI	.129	.038	.200**
Memoneg	.145*	-.029	.072
Negligent homicide qualification	.304***	.018	.307***
Intentional homicide qualification	.334***	.429***	.233**
Public denunciation	.184*	.120	.046
Minternal	.182*	.142*	.120
Type of study	.093	.258**	.036
Type of Study x culpability condition	.068	.040	.031
Culpability condition	-.053	-.058	-.105
Prison as a way of attenuating the harm done	-.004	-.061	-.079
R ²	.284	.367	.195
Adjusted R ²	.241	.328	.146
R	.533	.605	.442

*** p <.001, ** p <.01, * p <.05

As in the previous study for blameworthiness, regression analyses suggest that moral responsibility is predicted emotional and condemnatory evaluations, but also by legal qualifications. Yet, we suspect that the influence of these predictors may vary as a function of the respondents' type of study and the culpability condition. Further analyses for each of the four groups of respondents produced by combining the culpability condition and type of study must be carried out to examine this assumption. Moreover,

¹¹² See note 106

we will also check whether the absence of relationship between moral responsibility and favouring prison time can be generalised across all groups of respondents. Let us add that since the rating of public denunciation was found to be strongly related to favouring prison time and blameworthiness, with differences related to the respondent's student status, in the previous study, these associations will be examined further for each group of respondent.

Regression analyses also indicate that the moral and legal dimensions of responsibility share the intentional homicide qualification as a predictor. Findings discussed previously, in section 3.3., suggest that law students are more likely to have identified the differences between both culpability conditions, in terms of the legal underpinnings of the car-crash event, compared to psychology students. This could imply that moral and legal responsibility may not be associated to the intentional homicide qualification by all four groups of respondents. These associations will, thus, be examined separately as a function of culpability condition and respondents' student status.

Finally, since controllability shares also some predictors with M_{moral} and M_{legal} , the exact role of $M_{control}$ will also be evaluated. Once again, the role of $M_{control}$ with regard to M_{moral} and M_{legal} could vary depending on the culpability condition and the type of study of respondents. The associations will therefore be examined across all four groups of respondents.

3.8. Correlates of moral responsibility and the role of type of study and culpability conditions on these linkages

3.8.1. Moral responsibility and its relationship to negative emotions, public denunciation and legal qualifications

Regression analyses indicate that negative emotions, agreement with the public denunciation of the agent's acts and legal qualifications are associated to moral responsibility. As for blameworthiness in study 1, we anticipated that these linkages could be more likely for psychology students, compared to law students. Correlational analyses across the four groups of respondents were carried to examine these

associations. The punitive response favouring prison was not found to predict moral responsibility in the regression analysis. We decided to also check whether this absence of relationship was generalised for all groups of respondents.

Negative emotions were found to be only significantly correlated moral responsibility for psychology students in the negligence culpability condition ($r_{Npsy} = .429, p < .004$). This association was not significant for the other groups of respondents. Moreover, when examining the relationship between moral responsibility and favouring prison time, in line with the regression results, no significant relationships were found across the four groups of respondents. As for the association between moral responsibility and public denunciation, it was found to be significant for all groups of respondents ($r_{Rpsy} = .474, p < .004$; $r_{Npsy} = .321, p < .04$; $r_{Rlaw} = .280, p < .05$), except for the law students in the negligence condition. However, when controlling for the effect of favouring prison time, this association disappears for law students in the recklessness condition, whereas it remains strong for psychology students in both culpability conditions ($r_{Rpsy} = .436, p < .01$; $r_{Npsy} = .320, p < .04$).

Thus, for law students who are in the negligence condition, the association between moral responsibility and public denunciation may be more likely to depend on their acceptance that the imprisonment of the agent can attenuate the harm done to the victim's family, compared to psychology students (who seem to make this association without considering this punitive response). We suspect that this finding may be explained by the fact that law students may be more likely to associate public denunciation to favouring prison time, compared to psychology students. We thus examined this association across the four groups of respondents. As it turns out, all respondents in the recklessness condition associate significantly the public denunciation of the agent's acts and favouring his imprisonment ($r_{Rpsy} = .386, p < .03$; $r_{Rlaw} = .330, p < .02$), whereas no such associations are found for respondents in the negligence condition. Yet, further findings suggest that psychology students may base this association more on moral responsibility, than law students. Indeed, when controlling for the effect of moral responsibility on this relationship, this association diminishes significantly for psychology students ($r_{Rpsy} = .333, p < .06$, p value bordering significance), but not for law students ($r_{Rlaw} = .317, p < .03$).

3.8.2. Moral responsibility and its relationship to legal qualifications

Regression analyses indicate that moral responsibility is associated to legal qualifications related to negligent homicide and intentional homicide. As these associations are unexpected, we examined if they could be found for all groups of respondents across both culpability conditions and for both types of study. We suspected that psychology students would be more likely to make such an association, compared to law students. Indeed, law students, given their training, are more likely to associate legal responsibility to a legal qualification which reflects a legal liability to harsh penal sanctions, than to associate moral responsibility to such legal liability.

In line with our anticipations, law students did not associate moral responsibility to either negligent homicide or intentional homicide qualifications, whereas psychology students did make these associations depending on the culpability condition. A significant association between moral responsibility and the negligent homicide qualification was found only for psychology students in the recklessness condition ($r_{Rpsy} = .618, p < .001$), whereas moral responsibility and the intentional homicide qualification were significantly associated only for psychology students in the negligence condition ($r_{Npsy} = .315, p < .04$). Let us add that psychology students in both conditions associated significantly ($r_{Rpsy} = -.356, p < .04$; $r_{Npsy} = -.336, p < .03$) low moral responsibility to the accident qualification, whereas this linkage was never made for law students.

Findings until now suggest that law students are less likely to relate moral responsibility to qualifications that imply a legal liability for penal sanctions, compared to psychology students. We can thus wonder whether moral responsibility is more likely to be associated to legal responsibility for psychology students, compared to law students. The correlation between both responsibility dimensions was thus examined for the four groups of respondents. As it turns out, psychology and law students significantly associate moral responsibility to legal responsibility only for the negligence condition ($r_{Npsy} = .387, p < .009$; $r_{Nlaw} = .357, p < .03$). No significant associations were found for the recklessness condition. Let us add that this association in the negligence condition could depend on controllability ratings, since the relationship between both responsibility dimensions disappears for all respondents in this condition, when controlling for the

effect of controllability (M_{control}). In this context, one should also mention that the association between M_{control} and M_{moral} is more likely to be found for psychology students in all conditions ($r_{R_{\text{psy}}} = .449, p < .007$; $r_{N_{\text{psy}}} = .553, p < .001$), whereas only law students in the negligence condition make this linkage ($r_{N_{\text{law}}} = .687, p < .001$).

3.9. Correlates of legal responsibility and the role of type of study and culpability conditions on these linkages

3.9.1. Legal responsibility and its relationship to legal qualifications and rational factors

Regression analyses indicated that legal responsibility ratings were predicted by the intentional homicide qualification and the type of study of respondents. Correlational analyses concerning moral responsibility and its relation to legal qualifications showed that such a relationship could be more likely for psychology students, compared to legal students. These analyses, as well as findings related to the effect of type of study on legal responsibility evaluations as a function of the type of condition, also suggest that law students' evaluations could be more consistent with regard to legal reasoning, compared to psychology students. We thus expect law students to associate legal responsibility to relevant rational criteria and legal qualification in coherence with legal reasoning, whereas psychology students' responses may not follow such a pattern of reasoning. Findings point towards this conclusion.

M_{legal} was significantly associated to intentional homicide by law students in both conditions ($r_{R_{\text{law}}} = .566, p < .001$; $r_{N_{\text{law}}} = .340, p < .03$), whereas psychology students only associated this qualification to legal responsibility in the negligence condition ($r_{N_{\text{psy}}} = .315, p < .04$). In order to understand better why law students made this association in both conditions, whereas psychology students only made in the negligence condition, we checked for the effect of relevant factors that may explain variations in this association depending on the type of study.

We suspected that psychology students may be associating legal responsibility to the intentional homicide qualification, because they felt that this qualification was related to

harsh penal sanctions such as imprisonment. If this is true, favouring the imprisonment of the agent should have an effect on such an association. Partial correlations controlling for the prison time measure confirm this hypothesis. The association between Mlegal and the intentional homicide qualification diminished significantly for psychology students in the negligence condition and bordered significance ($r_{Npsy} = .291, p < .06$), whereas it remained strong for law students in both conditions, when partialling out prison time ($r_{Rlaw} = .565, p < .001; r_{Nlaw} = .343, p < .03$).

Moreover, we also assume that law students base their association of Mlegal and the intentional homicide qualification in both culpability conditions on rational criteria that are relevant to this linkage in legal reasoning, such as controllability and the intentionality criteria¹¹³. However, these rational criteria should have more of an influence on this association for the negligence condition than the recklessness condition, because the linkage between this qualification and Mlegal should be stronger in the latter condition (because it is more relevant to recklessness). These assumptions were supported by the following findings. When controlling for the effect of controllability, the association between Mlegal and the intentional homicide qualification disappeared for law students in the negligence condition, whereas it persisted for the law students in the recklessness condition and psychology students in the negligence condition ($r_{Rlaw} = .577, p < .001; r_{Npsy} = .322, p < .04$). Moreover, when controlling for the effect of the extent to which intentionality was ascribed to a negligent act, such as throwing a dart out of a window and hurting a passer-by, on the association between intentional homicide and Mlegal, the association disappeared again only for law students in the negligence condition ($r_{Rlaw} = .559, p < .001; r_{Npsy} = .305, p < .05$). Moreover, previous analyses showed that moral responsibility was related to legal responsibility only in the negligence condition and that Mmoral and Mlegal were predicted by the intentional homicide qualification. We thus checked whether moral responsibility affected the association between Mlegal and the intentional homicide qualification for the negligence condition. Findings suggest that this is the case, since controlling for the effect of Mmoral makes the linkage between Mlegal and the intentional homicide qualification disappear for

¹¹³ The intentionality criteria here is not the measure of intentionality used to evaluate the car-crash scenario, but the specific measure of the intentionality of Anne that was used in the first part of the questionnaire concerning the scenario of Anne throwing a dart out of the window.

psychology students in the negligence condition and diminishes significantly (to the point of bordering significance) for law students in the negligence condition ($r_{\text{Nlaw}} = .307, p < .06$). This association remains significant, however, for law students in the recklessness condition ($r_{\text{Rlaw}} = .562, p < .001$).

These results suggest that the law students associated legal responsibility to the intentional homicide qualification in both conditions, but were more likely to base this association on legal and rational factors for the negligence condition, whereas such factors did not affected this linkage in the recklessness condition. In the negligence condition, where an intentional homicide qualified is less applicable, compared to the recklessness condition (especially for law students), the linkage between legal responsibility and this qualification will be more probable if law students feel that the agent could have acted otherwise (control) or if they tend to attribute intentionality to a negligent conduct (dart situation). In the recklessness condition, law students are more likely to rate the agent's actions as intentional and to qualify the event of intentional homicide, compared to psychology students. Thus, they do not need to consider any other factor to be more likely to perceive this event as an intentional homicide, if they think that he acted intentionally, since they detected the element of intent in this culpability condition. Psychology students may have based their association of Mlegal with the intentional homicide qualification more on moral (Mmoral) and punitive factors (prison time), with less consideration for the legal realities involved in the condition.

Thus, the law students seem to be more likely to associate legal responsibility to other relevant rational and legal factors in a way which is consistent with legal reasoning and which makes the distinction between the two culpability conditions. Psychology students could be, on the other hand, more likely to base such associations on moral and punitive dimensions.

Let us also add that other results support this explanation for law students' tendency to a more "rational-oriented" reasoning. The associations between the specific measures of rational criteria for legal responsibility (used in the first part of the questionnaire) and legal responsibility as measured for the car-crash event are another example. Law students are the only ones to be more likely to associate the tendency to agree that a

negligent conduct was intentional and was enacted with the awareness of the risks taken to legal responsibility, depending on the culpability condition. Psychology students never associated their ratings of these rational criteria to their legal responsibility ratings. Thus, law students in the recklessness condition associated significantly the rating of the extent to which the dart situation constituted an intentional act to their evaluation of legal responsibility ($r_{Rlaw} = .305, p < .03$), but did not make such a linkage in the negligence condition. Law students made a similar association between the specific measure of the dart thrower's awareness of the risks attached to her actions and the legal responsibility evaluations, but only for the recklessness condition ($r_{Rlaw} = .350, p < .02$).

3.9.2. Legal responsibility and its relationship to controllability

As shown in section 3.7.2., controllability seems to play an important role in the association between moral and legal responsibility for the negligence condition. Moreover, controllability could play a different role with regard to legal responsibility depending on the type of study of respondents, as previous results seem to suggest. We thus, examined whether M_{legal} was associated to $M_{control}$ and checked whether M_{moral} influenced this association across the four groups of respondents. As it turns out, M_{legal} and $M_{control}$ were significantly associated by all groups of respondents ($r_{Rpsy} = .434, p < .009$; $r_{Npsy} = .302, p < .05$; $r_{Nlaw} = .415, p < .007$), except for law students in the recklessness condition. However, when controlling for M_{moral} , this association disappeared for all respondents in the negligence condition, but grew stronger for psychology students in the recklessness condition ($r_{Rpsy} = .483, p < .004$).

Finally, let us conclude by mentioning that, when controlling for the effect of M_{legal} , the associations highlighted between M_{moral} and $M_{control}$ in section 3.7.2., remain strong for law and psychology students in the negligence condition ($r_{Npsy} = .497, p < .002$; $r_{Nlaw} = .634, p < .001$) and grow even stronger for psychology students in the recklessness condition ($r_{Rpsy} = .495, p < .003$).

4. Conclusions

4.1. The coexistence of moral and legal dimensions to responsibility in respondents' representations

The main assumption guiding this study was that responsibility entailed two overlapping dimensions related to respectively, moral and legal factors. Evidence supporting this hypothesis was found in study 1 in which two levels of negligence were manipulated. In this study, in which two levels of culpability were manipulated this time, participants' representations of responsibility also reflected a clear distinction between legal and moral dimensions of responsibility.

Contrary to the previous study, the moral dimension of responsibility entailed only evaluations that reflected a purely blaming stance. Moreover, the legal dimension of responsibility reflected clearly the manipulation of culpability levels, since the legal responsibility factor structure opposed negligence to consciousness and intentionality. This indicates that respondents, especially the law students, correctly perceived the manipulation of culpability levels. As we shall see in section 4.3, law students who assessed the situation in the negligence condition were more likely to favour negligence ratings, compared to consciousness and intentionality assessments, whereas the contrary tendency was found for law students who evaluated a reckless behaviour. One should mention that the factor structure of legal responsibility in this study is different from the one that was yielded in the previous study. The previous study manipulated two levels of negligence, which yielded a legal factor including all rational criteria. This study, however, manipulated two levels of culpability (negligence vs. recklessness), which explains the observed opposition of negligence ratings to intentionality and consciousness criteria in legal responsibility factor.

Finally, it is noteworthy to observe that respondents also identified a third dimension related to controllability, which includes measures related to the extent of control the agent was deemed to have had over his actions. This dimension seems to have been clearly distinguished from moral and legal responsibility in respondents' evaluations. Let

us add, however, that the comparison of mean ratings and standard deviation values for the measures related to moral responsibility, legal responsibility and controllability, suggests that respondents were generally more likely to agree consistently with moral responsibility and controllability evaluations, than with legal responsibility judgments.

4.2. Respondents' perception of the gradations corresponding to the different levels of rational criteria used to evaluate legal responsibility

Moreover, findings concerning respondents' responses to general measures concerning the different dimensions underlying rational criteria of consciousness, voluntariness and intentional that were included in the first part of the questionnaire indicated generally that all respondents made a distinction between, on the one side, measures related to consciousness and intentionality, and on the other side, evaluations of voluntariness. Moreover, as in the previous study, all participants seem to have understood that measures of intentionality and consciousness that were formulated to be ambiguous reflected lower levels of intent and awareness of one's action, compared to the other measures related to consciousness and intentionality.

However, when one examines differences between ratings related to intentionality, one notices even more clearly than in the previous study, that law students are more likely than psychology students to show an accurate representation of the different gradations of these criteria consistent with legal levels of intent. They correctly rated the different dimensions and levels of intentionality in correspondence with legal reasoning. The gradation of their mean ratings thus increased as a function of the level of culpability entailed in each of these dimensions. Moreover, they also seem to have correctly graded the subjective probabilities attached to each of these dimensions. This result is interesting, since the underlying dimensions of these three rational criteria were assessed in relation to a rather neutral vignette, in terms of culpability. Indeed, the vignette was constructed in such a manner that the agent who was depicted was not attributed any intent or consciousness as to her actions, the risks they entailed and their consequences. Law students' responses concerned their evaluation, for each criteria, of the extent to

which the different dimensions measured corresponded to this given criteria. The different dimensions concerned the different degrees of consciousness, voluntariness and intentionality that could be attributed to the agent. The subject had to associate these to their representation of consciousness, voluntariness and intentionality. Thus, with a neutral situation, in which no cues related to rational criteria were added, law students correctly graded the different levels that should be considered when determining responsibility with rational criteria of consciousness, intentionality and voluntariness. Let us add that the correct gradation made by law students was even more in line with legal reasoning than the one found in the first study, where the vignette concerning Anne was less neutral, compared to the vignette used in this study. Law students rated these different levels of rational criteria according to the reasonable man standard, whereby the higher the awareness of the probability that an act will occur, the higher intentionality and consciousness will be attributed.

As for psychology students, even though they did not demonstrate as much understanding of the gradations involved in the assessment of different levels of intentionality as law students, some findings suggest that they did perceive different levels of intentionality. They made a difference between the pure desire to harm and respectively, the intent to harm and the awareness that there is a probability for harm to occur. Moreover, they also distinguished between two levels of awareness of the probability of risks (could vs. odds are great), when rating intentionality. These findings can be assimilated to Karlovac & Darley's (1988) finding that ordinary reasoning has a graded conception of the awareness of probability of risk which increases gradually from negligent, to reckless and finally, to intentional. Moreover, ordinary reasoning also seems to make an accurate distinction, in terms of intentionality, between harmful actions that are carried out because a person wanted them to harm someone, intended to harm someone purposely, knew that there was a high probability of harming someone and knew that someone could get hurt due to his actions. This indicates a good understanding of the difference between the desire and belief elements and the importance of foresight when evaluating intentionality. These findings are in line with Nadelhofer's (2006) analysis of the role of foresight, desire and intentions in people's perceptions of intentional action.

Yet, as we will see in the next section, psychology students' rather accurate perception of the gradations of intentionality did not generalize to their evaluations of the car-crash event. Findings indicate, overall, that law students were more likely, than psychology students, to match the level of intentionality and negligence to the corresponding culpability level of behaviour that was manipulated in the scenario. But, all respondents were more likely to qualify the event as an intentional homicide in the recklessness condition, compared to the negligence condition. This could indicate that all respondents identified the recklessness condition as more likely to be attached to harsh sanctions and a penal outcome than the negligence condition. This interpretation is noteworthy, but should be taken with caution, given that mean ratings for this qualification were low for both conditions, indicating general low agreement with this qualification. Moreover, the interpretation that respondents' did perceive that the negligence condition was attached to less serious legal consequences than the recklessness condition is also reflected in the finding that the qualification of "accident" was more likely to be favoured for the negligence condition. As findings concerning the effect of the manipulation of the level of culpability are strongly influenced by the type of study of respondents, results concerning the effect of condition as a function of field of study will now be discussed.

4.3. Effect of type of study and level of culpability on moral and legal responsibility dimensions

4.3.1. Law students' heightened sensitiveness to rational cues and criteria related to legal responsibility

The hypothesis of an interaction effect between type of study and level of culpability condition was confirmed. Law students made a strong distinction between both conditions in terms of their intentionality ratings and their negligence ratings: the recklessness situation was rated as entailing more intentionality and less negligence, whereas the negligence situation was perceived as implying more negligence and less intentionality. A reckless behaviour was thus more likely to be evaluated by law students

as more intentional than a negligent act. Conversely, a negligent conduct was evaluated by law students as more negligent than an intentional one. Psychology students tended more to rate all situations as high in negligence and low in intentionality. This strongly suggests that law students understand better the legal subtleties involved in the formulation of the two conditions than the psychology students. Indeed, even if psychology students understand that the negligence condition involves a less serious offense than the recklessness condition, they are less likely to perceive that one or the other condition implies differences in intentionality and negligence *per se*. They consider the situation, whatever the condition, more as an act of negligence and tend to qualify it more as an accident. The law students, on the other hand, detect markedly this difference and relate it to differences in intentionality and negligence, as shown by the interaction effect observed. These results provide strong evidence for the hypothesis that exposure to legal training may render a perceiver more sensitive to cues that are related to rational criteria of legal responsibility.

This interpretation is also supported by the finding that law students agreed that a person, whose actions are neutral, in terms of dispositions and mental states of the agent (dart situation in the first part of the questionnaire), was conscious of the probability of the risks, acted intentionally and with voluntariness, more than psychology students. This dart situation describes a person who is playing with darts in her flat, harms a passer-by on the pavement by missing her target and instead negligently throwing a dart through the window. Even though this situation can be considered as an accident in lay terms, a legal responsibility can be attached to it by the fact that it constitutes an act of negligence. Thus, psychology students answered according to their lay representation of this situation, perceiving this event as just being an accident and thus, rated consciousness, voluntariness and intentionality as being low. Law students, on the other hand, gave higher ratings for all three criteria, probably because they sensed that this situation could be characterized in legal terms as negligence. Law students were more susceptible to analyse the person's actions and dispositions in terms of the harmful outcome of his/her actions. They may have tended, more than psychology students did, to think that the person described could have done otherwise. They may have responded as

intuitive lawyers, as suggested by Hamilton (1980), which would not be very surprising given their training.

However, one should mention that, contrary to our predictions and to the findings in the previous study, law students did not perceive the different dimensions and levels of consciousness, voluntariness and intentionality differently (in terms of their ratings of these measures) than the psychology students did. They also did not rate the ambiguous consciousness and intentionality items as less constitutive of conscious and intentional actions, compared to psychology students. These results, when compared to the differences found for the more specific measures of consciousness of the probability of risks, voluntariness of action and intentional action, indicate that all participants, whatever their legal training, have a good representation of the different facets of consciousness, voluntariness and intentionality. The reason why respondents rated these different dimensions of consciousness, voluntariness and intentionality differently, depending on their field of study in study 1, but did not differ in their ratings of these different levels in this study, could be due to the vignette being more neutral in this study compared to the previous one. Differences between respondents due to their exposure to legal training were probably yielded in study 1 for these different dimensions, because the law students picked up more on certain details such as “throwing a flowerpot in a moment of rage” and rated the levels of rational criteria of responsibility accordingly, contrary to psychology students.

Thus, the finding in this study of differences related to the respondent’s field of study for specific ratings of consciousness, voluntariness and intentionality, but not for the ratings of the different dimensions of such criteria, leads us to the following conclusion. This indicates that, even though all respondents perceive roughly the different forms of consciousness and intentionality in a similar manner, when these criteria are evaluated concerning a specific situation and a specific outcome, law students are more likely to use a legal reasoning process and use these criteria in that objective, compared to psychology students. Moreover, let us not forget the finding, discussed in section 4.2, that law students were more likely, than psychology students, to grade different nuances of intentionality in correspondence with legal understandings of forms of intent. These

various findings bring us to the conclusion that people, in ordinary reasoning perceive different shades of consciousness and intentionality, but may not necessarily use them to analyse a situation in a legal mind-set.

4.3.2. Psychology students' more ordinary and morally-oriented evaluations

Ordinary reasoning about responsibility may be less inclined to evaluate the car-crash event using a legal framework of reasoning and may be more likely to employ a more moral perspective, as demonstrated by psychology students' patterns of response in this study. Psychology students, for the car-crash situation, reasoned differently than law students when having to rate the two levels of legal culpability of conscious negligence and recklessness. They attributed more negligence to the agent, whatever the level of culpability, compared to law students, whereas law students rated the recklessness situation as entailing more intentionality than the negligence condition. Let us also not forget that the legal responsibility dimension opposed negligence, on the one side, to consciousness and intentionality, on the other side. Respondents were, thus, more likely to favour one or the other pole of this dimension depending on their field of study. Law students were also more likely to qualify the reckless conduct of intentional homicide and tend more to qualify the negligent behaviour of negligent homicide. Psychology students, in all conditions, tend to disagree with the qualification of intentional homicide and to agree more with the qualification of "accident" and negligence. Thus, law students perceived more the subtleties that distinguished the two levels of legal culpability, in terms of rational criteria of intentionality, whereas psychology students were more likely to evaluate the situation in moral and descriptive terms such as negligence and accident.

Findings until now suggest overall that psychology students were more attuned to the moral implications of the car-crash and less receptive to the legal implications that accompanied the levels of culpability of negligence and recklessness. They may have rated the extent of negligence they attribute to the agent's actions with the same intensity, whether the agent's acts were legally constitutive of negligence or recklessness, because they did not take into account as much the rational criteria of intention, compared to law

students. Thus, in line with Malle & Nelson's (2003) suggestions, psychology students were maybe less likely to make a distinction between the recklessness condition and the negligence condition, in terms of intention, because the formulation of intent in the recklessness condition did not correspond to their folk theory of intention. Indeed, according to Malle & Nelson (2003), in a folk conception of intention, the presence of an element of desire is essential and intention cannot be understood as such in ordinary reasoning if the agent whose actions are evaluated is not described as having wished for a harmful outcome to occur. This interpretation is all the more possible, since intentional behaviours are supposed to yield more blame and more anger (Alicke, 2000; Knobe, 2003) and the recklessness condition did not affect blame or anger ratings, compared to the negligence condition.

Moreover, the prediction that psychology students would show higher moral responsibility ratings than law students was not confirmed. To the contrary, the law students showed stronger evaluations that the agent should be accountable before justice than psychology students did. This finding could be explained by the reasoning that law students were more sensitive to the liability to penal outcomes engendered by the situation, whether it constitutes negligence or recklessness. They may have interpreted accountability in a legal sense, due to the formulation of this measure: the assessment of accountability could be related to the legal system, as it includes the term "justice". The only measure, which was given stronger ratings by psychology students compared to law students, concerned the public denunciation of the agent's acts.

In sum, findings concerning mean ratings for moral responsibility measures only partly support the assumption that psychology students could evaluate the moral responsibility of the agent more strongly than law students. Indeed, the only measure that seems to be more strongly favoured by psychology students, compared to law students, concerns the public denunciation of the agent's actions. However, as we will see in section 4.4., other findings suggest that psychology students are more likely to reason in moral terms about the car-crash scenario and its legal implications, whereas law students are more likely to reason about responsibility in a more rational and analytical manner consistent with the legal culpability manipulation.

4.4. Correlates of the moral responsibility dimension and the influence of type of study and culpability condition

As for the predictions concerning the factors that would underlie moral responsibility ratings, most of these were supported by the findings. Blame-related measures, as expected and in line with the results of the previous study, were not evaluated as higher for the recklessness condition compared to the negligence condition. Thus, evaluations of blame, responsibility for a victim's death and accountability before justice were not attuned to the degree of culpability of the agent. This indicates that moral responsibility evaluations are not affected by changes in legal levels of culpability that reflect the limit between negligence and recklessness. Moreover, factors related to blame, such as negative emotions and punitive responses to the harm done, were not given higher ratings when the level of culpability of the agent was described as higher (recklessness), compared to the negligence condition.

Regression analyses demonstrated, as for blameworthiness in study 1, that moral responsibility was related to negative emotions, to public denunciation ratings and to the qualification of negligent homicide. Moreover, it was also found to be associated to the intentional homicide qualification and the tendency to internality.

More detailed analyses were carried out separately for each group of respondents, depending on the type of study and the culpability condition, for associations between moral responsibility, negative emotions, public denunciation and legal qualifications related to negligent and intentional homicide. As we will discuss more extensively in the next sections, findings suggesting that these associations do not generalise to all respondents were highlighted.

4.4.1. The relationship between moral responsibility, negative emotions, public denunciation and punitive responses

The association between moral responsibility ratings and negative emotions was only found to be significant for psychology students in the negligence condition. Law students and psychology students in the recklessness condition did associate high negative

emotional feelings to ascribing high moral responsibility. Such an association was already found to be more consistent for psychology students in study 1 and has been often found in ordinary reasoning about responsibility (Quigley & Tedeschi, 1996; Weiner, 1995b).

Psychology students, in all conditions, were more likely to agree that the agent's acts should be publicly denounced, when they ascribed high moral responsibility to him, whereas only law students in the recklessness condition related these two evaluations. However, this association could be based on different premises depending on the respondent's field of study. Indeed, for law students, further analyses suggest that this association could be more likely if they also agree that the agent should be imprisoned. Yet, this linkage is more likely to be independent of such a punitive response for psychology students in all conditions. Let us add that all respondents in the recklessness condition were more likely to favour the imprisonment of the agent as a manner to attenuate the harm done to the victim's family, if they agreed with the public denunciation of the agent's actions, whereas respondents in the negligence condition did not associate these two evaluations. Thus, respondents who agree that this harmful action should be publicly condemned may be more likely to favour a custodial sanction when the culpability level of the agent reflects higher legal liability, than when the actions are less culpable. However, this association may be more likely for psychology students if they also ascribe moral responsibility to the agent, whereas law students are more likely make this linkage independently of whether they consider the agent to be blameworthy for his actions. Let us add that, even though moral responsibility may influence the likelihood of relating agreement with the public denunciation with favouring a punitive penal response for psychology students, moral responsibility was not directly related to such a punitive response for any of the four groups of respondents.

These results provide further support to the interpretation that denouncing an act is a response which is related to a blame evaluation and which determines punitive responses. These results could be related to the findings of a previous study (Taylor & Kleinke, 1992), which indicated the moderating role of punishment ratings on the link between blame and imposing a prison sentence. Public denunciation could follow blame rating

and determine the likelihood of favouring punitive penal outcomes. Like in the previous study, public denunciation could act as a condemnatory evaluation that the offender deserves a harsh sentence (Feather, 1996). Further support is provided for the contention that blame is related to a moral outrage reaction, which involves a moral condemnation emphasizing the deservingness of the penalty, and which can lead to punitive responses. The fact that this punitive moral outrage process of reasoning is more characteristic of psychology students replicates findings from the previous study. These results support also findings from previous studies concerning ordinary perceptions of punitive sanctions and their relationship to the ascription of blame (Carlsmith & Darley, 2008; Feather, 1996; Feinberg, 1970). We can conclude that psychology students' moral outrage perspective, in this study, may be more representative of ordinary reasoning about responsibility for actions that can lead to harsh penal outcomes, than law students' response patterns.

4.4.2. The relationship between moral responsibility and legal qualifications of intentional homicide and negligent homicide

Likewise to the previous study and, contrary to our expectations, moral responsibility was found to be associated to legal qualifications related to negligent homicide and intentional homicide. The association between moral responsibility and negligent homicide can be related to the relationship that was found in study 1 between this qualification and blameworthiness ratings. However, the association between moral responsibility and the intentional homicide qualification is more intriguing, since legal responsibility is also associated (even more strongly) to this same qualification. Since these qualifications are used in legal reasoning, we expected, and this assumption was verified, that the relationship between moral responsibility and such qualifications may be more likely for certain groups of respondents, compared to others, depending on the type of study and the culpability condition. More specifically, we expected moral responsibility to be more likely to be related to such qualifications for psychology students, compared to law students. Indeed, given their training, law students should intuitively be more likely to associate these qualifications to legal responsibility and less

likely to related them to moral responsibility. The following findings support this interpretation.

Law students never made any significant associations between respectively, negligent homicide and intentional homicide qualifications and, moral responsibility. Moreover, law students never associated low moral responsibility to being more likely to consider the event as an accident. On the contrary, psychology students were more likely to agree to qualify the event of negligent homicide, in the recklessness condition, and were also more likely to consider that the car-crash constituted an intentional homicide, in the negligence condition, if they ascribed high moral responsibility. Moreover, psychology students, no matter what the culpability level of the agent, were more likely to qualify the event as being accidental if they did not consider the agent to be morally responsible for his actions.

In sum, as we had anticipated, law students did not associate moral responsibility to qualifications that imply the possibility for a legal outcome and a penal response, whereas psychology students did relate both dimensions. Let us add that psychology students not only were more likely to associate moral responsibility to legal qualifications, but made these linkages following a reasoning process, which is not consistent with the legal realities of the two conditions. Indeed, they were more likely to qualify the event of intentional homicide, if they ascribed high moral responsibility to the agent who acted negligently (implying less intent and more negligence). Conversely, they were also more likely to favour a negligent homicide qualification, when they attributed moral responsibility to the agent who acted recklessly (more intent, less negligence).

These results indicate again that law students may be more likely to follow a strictly legal reasoning process when evaluating the situation and more likely to do this independently of moral judgments compared to psychology students. This interpretation is also supported by the findings discussed in the following section concerning correlates of legal responsibility and the role of type of study and culpability condition.

4.5. Correlates of the legal responsibility dimension and the influence of type of study and culpability condition

Contrary to our predictions, measures related to the legal responsibility dimension that were relevant to the manipulation of levels of culpability, such as intentionality and negligence, were not affected by the culpability condition for all respondents. This effect concerned more law students than psychology students. However, the legal qualification of intentional homicide was more favoured in the recklessness condition, compared to the negligence condition by all respondents (but this qualification produced low agreement ratings whether in one or another culpability condition). The qualification of “accident” reached more agreement in the negligence condition than in the recklessness condition for all respondents, whatever their type of study.

Thus, all respondents’ ratings related to the intentional homicide qualification were maybe in some way sensitive to the degree of foresight attributed to the agent concerning the possibility of a harmful outcome to his actions. As found in previous analyses (Nadelhoffer, 2006), the likelihood of evaluating the actions that lead to the harmful outcome as intentional was strongly determined by the level of the agent’s awareness concerning the probability that this outcome would occur. However, this does not contradict the observation that only respondents who were law students rated the intentionality measure higher in the recklessness condition than in the negligence condition. Indeed, identifying the fact that the agent was more aware of the probability of the outcome in the recklessness condition and relating it to a harsher legal qualification, may not be the same thing as attributing an intention to the agent, since the element of desire is lacking, in line with Malle & Nelson’s observations (2003). In this line of reasoning, anticipating that one’s actions can lead to a given consequence and not taking any preventive measure to avoid this outcome cannot be equated to intention as it is understood in ordinary reasoning. Thus, psychology students may have not attributed more intentionality to the agent’s actions in the recklessness condition compared to the negligence condition, because they did not identify any element indicating that the agent desired to harm the victim in the higher culpability condition. To reiterate the argument put forward in section 4.3.2., the criteria used to describe a situation of reckless conduct,

and thus to reflect an element of intent in the legal understanding of it, may not correspond to psychology students' folk theory of intention.

Further findings demonstrate quite clearly that law students were more likely than psychology students to relate rational criteria and legal reasoning processes to their understanding of the legal responsibility involved in each culpability condition.

Regression analyses suggest that evaluations concerning the legal responsibility dimension are strongly related to the type of study of respondents, as well as to the legal qualification of intentional homicide. Legal responsibility dimension was, as anticipated, not related to emotional and punitive responses factors.

Moreover, further analyses show that the association between intentional homicide and legal responsibility may be more consistent for law students across both conditions, than for psychology students (only exists for the negligence condition). As a matter of fact, when controlling for agreement with the imprisonment of the agent, this association diminishes for psychology students in the negligence condition, but remains strong for law students in both conditions. Thus, psychology students may be more likely to want to qualify the event of intentional homicide when they rate highly his legal responsibility, because they are also thinking that the agent should be sentenced to a custodial term. Law students may just associate these two measures, because they are consistent with legal reasoning: the higher the legal responsibility, the higher the likelihood that the actions will be qualified as an intentional homicide. This interpretation could be particularly relevant for law students in the recklessness condition. Indeed, the association between the intentional homicide qualification and legal responsibility diminishes significantly for law students in the negligence condition, when controlling for controllability, whereas this association remains strong for law students in the recklessness condition and psychology students in the negligence condition.

The fact that respondents in the negligence condition are more likely to qualify this event of intentional homicide when legal responsibility is considered to be high, whether they are law or psychology students is intriguing, since it is not consistent with legal reasoning for a negligent conduct. Further findings show that, for psychology students, this linkage could depend on their tendency to ascribe high moral responsibility to the

agent. Accepting imprisonment as a punitive response could also be an important factor for such an association to be made by psychology students in the negligence condition, as discussed previously. As for law students, as we shall see, controllability and intentionality ratings are important elements to consider for this linkage to be more likely.

Some results also indicate that even though law students are more likely to qualify the event of intentional homicide when they attribute high legal responsibility for both culpability levels, they differentiate between recklessness and negligence in terms of the factors they may consider to make such an association. For law students in the recklessness condition, high legal responsibility ascriptions seem to consistently make agreement with the intentional homicide qualification more likely. This association is not dependent on whether they consider the agent's actions to have been under his control or on their perception of the extent to which a seemingly negligent conduct (dart situation in the first part of the questionnaire) can be intentional. However, law students in the negligence condition were more likely to make such an association 1) if they considered that the agent's actions were under his control and; 2) if they believed that a negligent conduct, such as throwing a dart involuntarily through the window and harming a passer-by in the process, could be characterized as intentional. Thus, law students follow a more rational and analytical pattern of reasoning when associating legal responsibility to the intentional homicide qualification. They are only more likely to make such an association in the negligence condition, if they consider that an agent who harms another person even though he took precautions to avoid the possibility of harmful consequences from happening, could have taken more precautions, could have acted differently and acted intentionally. Conversely, psychology students are less likely to make such an association if they do not consider the agent morally responsible or if they do not favour a punitive penal response to deal with this event.

In the same vein, let us also mention another finding which adds further support to the contention that law students are more likely to relate legal responsibility to relevant rational criteria used in legal reasoning for such evaluations, compared to psychology students. Correlational analyses indeed demonstrated that law students in the recklessness condition were the only respondents to relate the specific measures of rational criteria of

consciousness and intentionality (rated for the dart situation in the first part of the questionnaire) to the legal responsibility dimension.

Overall, these results reveal even more clearly that law students and psychology students follow very different logics of reasoning when evaluating legal responsibility. Law students are more likely to follow a rational-oriented pattern of reasoning, whereas psychology students are more likely to reason about legal responsibility in a more moral and punitive-oriented fashion.

4.6. The relationship between moral responsibility and legal responsibility and the role of controllability

Given findings discussed until now, we suspected that moral and legal responsibility dimensions may be related in some way in respondents' minds and that this linkage may be more likely for psychology students than for law students. However, an examination of this association across all groups of respondents does not support this hypothesis. Moral and legal responsibility dimensions were associated by all respondents in the negligence condition, but not in the recklessness condition. Thus, this association may depend more on the level of culpability of the agent's actions, than on the legal training of respondents. Let us add that the fact that respondents in the negligence condition are more likely to rate high legal responsibility when they rate high moral responsibility could be strongly dependent on the extent to which they rate the controllability of the agent's acts. Findings point towards the influence of controllability on the association between moral and legal responsibility dimensions for the negligence condition. This result is not surprising, since controllability could be a particularly relevant dimension when evaluating an act of negligence. However, the influence of controllability on this association could be stronger for law students than for psychology students. Indeed, even though this association is no more significant for all respondents when partialling out the effect of controllability, r values are more strongly reduced for law students, than for psychology students (compared to corresponding r values without controlling for controllability).

Another point to mention is that controllability was more likely to be consistently associated to moral responsibility by psychology students in both conditions, whereas this relationship was only observed for law students when they were in the negligence condition. This could mean that law students only associate controllability to moral responsibility when evaluating an event which corresponds to a negligent conduct in which no indication of intentionality and voluntariness is made salient and for which legal outcomes will be less harsh than for the other condition. Psychology students may associate moral responsibility to controllability whatever the level of culpability, because they do not take into account as much the differences between both culpability conditions, in terms of intentionality and voluntariness.

These latter findings can also be related to the observation of significant associations between controllability and legal responsibility for all respondents, except law students in the recklessness condition. Furthermore, when examining the effect of moral responsibility on these associations, results mirror the findings for the association between moral and legal responsibility and the effect of controllability: this association disappears for all respondents in the negligence condition when partialling out for the effect of moral responsibility. Conversely, when controlling for the effect of moral responsibility, psychology students in the recklessness condition are even more likely to associate legal responsibility to controllability.

Finally, let us add that the linkage between moral responsibility and controllability that was observed for all psychology students and law students in the negligence condition does not depend on legal responsibility. Partialling out the effect of legal responsibility does not affect the fact that these respondents are more likely to consider that the agent's actions were under his control when they ascribe high moral responsibility.

These findings bring us overall to the following conclusions. Moral responsibility and controllability are more likely to be related to legal responsibility when respondents are in the negligence condition. Controllability and legal responsibility are more likely to be related to each other through the influence of moral responsibility in the negligence condition. Controllability and legal responsibility could however be related to each other

independently of moral responsibility ratings for psychology students in the recklessness condition. Finally, controllability and moral responsibility are related to each other for all respondents, except law students in the recklessness condition and this association is independent of legal responsibility ratings. This could be even more the case for psychology students in the recklessness condition.

In sum, various findings point towards the conclusion that moral responsibility attributions are, in line with Alicke's (2000) model of culpable control, significantly determined by the extent of control over the actions that are attributed to the agent. Moreover, this association may be more likely for ordinary reasoning concerning responsibility (psychology students evaluations being considered to be more representative of such reasoning), compared to law students response patterns.

What's more, the relationship that was found between moral responsibility and legal responsibility ratings was highly dependent on controllability and was more likely for the negligent conduct than for the reckless conduct. Thus, a moral ascription of blame could be more likely to be accompanied by a legal evaluation of responsibility, if one considers that the negligent agent could have exercised more control over his actions. This interpretation makes sense, for that matter, since a negligent conduct is more likely to not only be considered blameworthy but also lead to penal outcomes, if it considered that such actions could have been prevented by taking reasonable precautions or acting otherwise.

In addition, results also suggest that the relationship between moral responsibility and controllability is more likely to be independent of the legal responsibility dimension, whereas the association between legal responsibility and controllability is more likely to be affected by moral responsibility evaluations, especially for negligent conducts. As these observations were more consistently found for psychology students and since these respondents are deemed to be more representative of ordinary reasoning, we contend that this pattern of responses concerns more ordinary reasoning than legal reasoning.

4.7. General conclusions

Many of the results in this study indicate that respondents hold moral and legal dimensions in their representations of responsibility. Several findings suggest that law and psychology students reason about responsibility in moral and legal terms. However, law students, because of their greater exposure to legal reasoning, may also rely more on the legal dimension of responsibility, when they are confronted with legal cues that are salient in the scenario, compared to psychology students. Moreover, several findings, at the correlational level of analysis, lead us thus to suggest that moral responsibility and legal responsibility are not only overlapping dimensions that exist in our representations, but may also be each underlain by different reasoning processes. Yet, correlational analyses also suggest that moral and legal dimensions of responsibility may be also related to each other in some way. This could be especially the case for ordinary reasoning about negligent conduct.

Let us conclude with the general observation that the manipulation of two degrees of culpability, like negligence and recklessness, produced more salient and distinct representations of legal and moral responsibility, as well as controllability, compared to the previous study's findings.

Moral responsibility ratings were clearly distinguished from legal responsibility criteria in participants' general conceptualizations of responsibility-related measures. Moreover, a controllability dimension was also highlighted and was found to be a central element to consider when attributing moral responsibility. Moreover, controllability was also found to be an important dimension for moral responsibility to be associated to legal responsibility in respondents' evaluations of the negligence condition.

The manipulation of legal levels of culpability showed marked differences, compared to the manipulation of levels of negligence in study 1. All participants seem to have perceived that the negligence situation was less serious in terms of legal responsibility than the recklessness situation. Indeed, the accident qualification was more favoured in the negligence condition than in the recklessness one, whereas the intentional homicide qualification reached higher agreement levels in the recklessness condition, compared to

the negligence one. This manipulation also yielded more clear differences, in terms of the effect of field of study on rational criteria and legal-related measures. Evidence for this is supported, for example, by the existence of interaction effects for measures directly related to the manipulation, such as negligence, intentionality and intentional homicide qualifications.

However, findings that law students and psychology students did not rate most moral responsibility measures differently indicates that moral and legal dimensions coexist in people's representations and can be referred to when attributing responsibility, independently of whether the perceiver is more sensitive to legal or moral criteria. The fact that law students were more likely to perceive the legal cues that were rendered salient in the manipulation of legal culpability and differed in terms of their legal responsibility ratings, compared to psychology students may be due to their heightened sensitivity to rational criteria used in legal reasoning. What may thus influence a perceiver's responses to these moral and legal dimensions is the salience and the nature of the cues that are included in the situation they have to judge. Depending on their training, they may be more sensitive, in terms of their legal responsibility ratings, to a rational cue (here "the agent knows that the chances of a harmful outcome are high, but wants to reach his goal at all costs") that is rendered salient in a scenario and that is related to a legal definition of recklessness. If this assumption is exact, when cues related to extra-legal criteria are explicitly included in the scenario and are presented in more or less normative conditions, this manipulation should affect moral responsibility ratings, but not legal responsibility ratings.

The next study, therefore, will test the influence of normative criteria on respondents' representations of moral and legal responsibility. Consideration for such an influence is even more justified, given the important role afforded by previous research (Alicke, 2000; Hamilton & Sanders, 1981; Schlenker et al., 1994) to norms and values in influencing blame attributions. The inclusion of normative criteria will also help us gain a better understanding of the role of moral responsibility ratings with regard to legal responsibility ratings. More precisely, we will examine whether moral responsibility ratings are still associated to legal responsibility ratings when the cues of the scenario which are salient concern normative criteria and no more rational criteria pertaining to

legal reasoning. The influence of punitive aims will, like for study 1, be considered in the next study. Indeed, findings in study 1 suggest that just deserts (retributive) punitive aims are more related to the moral dimension of responsibility. An in-depth examination of the relationship between such punitive aims and moral and legal responsibility dimensions, when normative criteria are rendered salient, is therefore necessary.

IV. Study 3. Moral and legal dimensions of responsibility and social norms: the effect of the manipulation of the reasons for committing an offense and age of the offender

1. Introduction

Findings until now have supported the idea of the existence of moral and legal dimensions to responsibility. Evidence supporting the assumption that such dimensions overlap and are interrelated in people's representations of responsibility was also highlighted in studies 1 and 2. Moreover, the two previous studies demonstrated that moral and legal responsibility dimensions are determined by different underlying factors. Blame was more related to negative emotions, just-desert punitive aims, punitive responses, public denunciation or controllability. Legal responsibility was more likely to be related to rational criteria such as consciousness of the probability of risks, as well as the law student status.

Research (Alicke, 2000; Brauer & Chaurand, 2010; Schlenker et al., 1994) shows that, in addition to emotions and punitive attitudes, perceiver's norms and values can affect the way in which people attribute blame to other's actions. Normative expectations concerning what constitutes socially desirable behaviour have been related to responsibility attributions for behaviours that can lead to harmful outcomes for others (Alicke, 1992; Devos-Comby & Devos, 2001). If one takes this reasoning one step further, it may very well be possible that extra-legal factors, such as age and justifications for behaving irresponsibly, will have an influence on responsibility attributions. The evaluation of this assumption will be the object of this study. The role of extra-legal factors in legal reasoning, as well as research findings on the influence of extra-legal factors on responsibility attributions will be briefly discussed, as they are important for understanding the assumptions guiding this study.

1.1. The role of extra-legal factors related to social norms in criminal law settings

In criminal law, many extra-legal factors that are related to social norms or social roles can be considered when determining the sentence to be imposed to a person found guilty of an offense. Some factors can be considered mitigating and will thus yield a lighter sentence, whereas other elements can aggravate the offender's fault and increase the sentence. Mitigating factors can include, among other elements, the absence of a police record or the mild seriousness of the offender's previous crimes, the age of the offender, the perpetrator's alcohol intoxication during the commission of the incriminated act, the participation or consent of the victim, moral justifications and the fact of having acted under duress or threat (McPherson, 1995). The sentence is consequently the product of a complex assessment from the part of the judge of the offender's personal characteristics, his situation and his behaviour.

But ordinary reasoning concerning such factors does not always point in the direction of mitigation. For example, being under the influence of alcohol, at the moment of the commission of a criminal act, is not considered as a diminishing factor, but an aggravating one (Leigh & Aramburu, 1994). Moreover, some factors, which are not supposed to be taken into account by judges in their decision-making process, are taken into account by ordinary persons in their judgments (Barnett et al., 2004). Characteristics of the agent such as physical attraction (Wuensch, Castellow & Moore, 1991), ethnic origin (Perez, Harmon, Hosch, Ponder & Chanez Trejo, 1993) or religious beliefs (Wainryb, 1991) can influence people's responsibility judgments. Victim characteristics such as their "likeability" (drug dealer vs. voluntary worker) or their degree of co-responsibility for the harm suffered can also affect the degree of responsibility and blame attributed to the offender (Haynes & Olson, 2006).

1.2. The role of social norms and their effect on ordinary reasoning of responsibility

Several explanations have been offered for this tendency for ordinary reasoning to take into account extra-legal factors that are, for some, the product of stereotypic representations of the offense that is being judged. Smith (1991) suggested, for example, that jurors use crime prototypes, that is, typical exemplars of crime categories that they hold in their memory and that are often not legally relevant, to perceive facts and guide their verdict decision. Moreover, Fincham & Jaspars (1983) contend that people may attribute more responsibility to an actor who is described as behaving in an uncommon manner, which does not fit any mental representation of crime that is familiar to them. In the same vein, Brauer & Chaudrand (2010), using Cialdini, Reno & Kallgren's (1990) assumption of injunctive norms, demonstrated that social control responses (disapproval of a given conduct) were predicted by the perceiver's conceptions about "what people ought to do", that is, the social norms related to desirable conduct. Thus, people hold certain schemas of events in their mental representations that influence their normative expectations about a given conduct. Such social norms have been defined as "a set of behaviours perceived by a collective entity as desirable" and can be related to the notion of injunctive norms highlighted by Cialdini, Reno & Kallgren, (1990).

Such social norms have been shown to influence blame ratings in various studies. These studies focused on the role of normative expectations about a victim's or perpetrator's personality (Alicke, 1994; Alicke & Davies, 1989), social attractiveness (Alicke, 1994; Kaplan & Kemmerick, 1974; Landy & Aronson, 1969; Myers, 1980), social desirable behaviours or motives for behaviour (Alicke, 1992; Devos-Comby & Devos, 2001; Heitzmann, 2007) or status (Shaw & Skolnick, 1996). Moreover, Darley et al.'s (2000) findings suggest that people, who have to judge an immoral and anti-normative behaviour (murder) may respond with less moral outrage and lower sentences when this behaviour was caused by a brain tumour, than when it was due to jealous rage. Thus, people who are faced to a harmful outcome they have to judge the responsibility for, in a need to find someone accountable, may be more susceptible to identify cues that may help him/her blame the person for the negative outcome. As suggested by Alicke

(2000), they search for counter-normative behaviours that may support their ascription of responsibility to a given person. This need to favour blame can also lead the perceiver to disregard mitigating circumstances that could weaken the human agency attribution (Gilbert & Malone, 1995).

1.3. The role of extra-legal factors related to social norms with regard to responsibility attributions in this present study

The extra-legal factors that were examined in the present study, in terms of their effect on responsibility attributions, were related to age and justifications for behaving irresponsibly.

Age was chosen, since it is a relatively important element to be considered when determining legal responsibility (McPherson, 1995).

As for justification for behaving irresponsibly, the rationale behind its inclusion as a factor in this study is linked to previous research (Comby, Devos & Deschamps, 1995; Devos-Comby & Devos, 2000) findings concerning the evaluative traits that are related to the sense of responsibility. This research suggests that traits such as “unreasonable”, “immature” and “irresponsible” are rated more negatively and may be less socially desirable. Thus, we decided to oppose justifications for behaving irresponsibly that would be considered to be more reasonable and more mature (working all night) to justifications that reflect less reason and maturity (partying all night).

Moreover, the agent’s behaviour that is judged concerns his creating a fatal collision due to fatigue. This particular cause for the collision was chosen, since driving when feeling tired can be considered as an offense, if the driver is aware of his fatigue, does not refrain from driving, and runs the risk of creating an accident (Jeanneret, 2007). This reasoning is guided by the argument that driving in a state of incapacity due to other reasons than alcohol consumption is also an offense (art. 91, al. 2 LCR). Among the various causes of incapacity, fatigue and overwork are considered important elements in the Road traffic act, since a tired driver can be as dangerous on the road as a drunken driver would be (Jeanneret, 2007, art. 91 LCR, n.34 and 36). Case law states, in addition, “a driver is considered to be in a state of incapacity from the moment he realizes that his

level of attention and concentration may impair his ability to drive safely in all circumstances”¹¹⁴. Thus, a healthy person, who disregards signs of drowsiness while driving with the hope of remaining awake until her destination, demonstrates obvious gross negligence (Mizel, 2004).

The situation evaluated by respondents in studies 1 and 2 was adapted from a real event in order to correspond to the legal requirements of unconscious negligence, conscious negligence or recklessness. This situation was constructed in such a way to avoid as much as possible the influence of unwanted biases. Thus, the context of the fatal road traffic accident was described in a very matter-of-fact language. The scenario were checked for the absence of qualitative terms that could bring a negative or positive valence to the elements described, of value-laden adjectives, and of contextual elements that could be related to certain normative expectations.

However, this present study involved scenarios that were developed and manipulated according to participants’ normative expectations concerning justifications for behaving irresponsibly and the age of the agent. More specifically, the reason for which the protagonist committed an offense was linked either to a duty or to pleasure. When the agent’s actions were the result of a duty-related activity, background information about the agent was formulated in such a way to portray the agent as mature and reasonable. Conversely, the agent’s background information gave more an impression of immaturity and wildness, when his actions were the result of a pleasurable activity. Moreover, the agent was, either described as a young man (18 years old), or as an older man (40 years old).

This study aimed, accordingly, to demonstrate that normative expectations related to a responsible and mature way of acting (acting out of a duty) vs. a less mature and responsible behaviour (acting out of pleasure) would influence moral responsibility. It also aimed, however, to show that a criterion, such as age, since it is an important element to consider in legal reasoning of responsibility, should not affect moral responsibility ratings, but may influence legal dimensions. The assumptions guiding this study will now be elaborated.

¹¹⁴ ATF 126 II 206, JdT 2000 I 401

1.4. Hypotheses

The main assumption of the existence of overlapping and interrelated moral and legal dimensions in responsibility attributions is contended in this study, in line with findings in the two previous studies. The salience of normative factors in the scenario that was evaluated is also expected to yield representations of responsibility including moral and legal facets. Three main sets of predictions are made from this general assumption.

Effect of normative factors related to age and justifications for irresponsible conduct on moral and legal responsibility dimensions

The manipulation of normative factors of age and justifications for irresponsible behaviour aimed at rendering normative expectations salient in relation to such factors. Accordingly, this manipulation is anticipated to affect differently the moral and legal responsibility attributions, depending on whether the age or the justification for irresponsible conduct is manipulated.

Since the moral responsibility dimension has been related to normative expectations concerning socially desirable behaviours by previous research, we expect the justifications for irresponsible behaviour to affect blame-related ratings. These blame ratings should be lower when irresponsible behaviours are justified by duty-related and reasonable motives, than when irresponsible behaviours are justified by pleasure-related and immature motives. Thus, the agent who acts irresponsibly due to hedonistic reasons will be evaluated as more blameworthy, as more responsible for the victim's death and as more accountable before justice, compared to an agent whose irresponsible conduct is related to his performing a duty. Factors that were related to the moral responsibility dimension in the previous studies, such as negative emotions and retributive punitive attitudes and responses (just desert aims, favouring the imprisonment of the offender, the level of sentence to be imposed) should also be rated higher when judging an irresponsible behaviour motivated by pleasure, than when judging an irresponsible behaviour motivated by duty. Moreover, justification for having taken the risks that lead

to this harmful outcome should be affected by this manipulation, in that we expect a duty-related harmful behaviour to be more justified in the participants' eyes than a pleasure-related harmful behaviour.

In opposition, the manipulation of justifications for irresponsible behaviour should not affect legal responsibility criteria such as consciousness, voluntariness and intentionality. It should not lead to different levels of agreement with the qualifications of negligent or intentional homicide either.

Furthermore, since moral responsibility was strongly related to controllability in the previous study, we expect the justification condition to have an influence on controllability-related assessments pertaining to negligence, carelessness, possibilities to act otherwise and the level of precaution taken. Participants should agree more that the agent could have done otherwise, was careless, did not take all the necessary precautions to avoid the event and acted out of negligence in the pleasure-related justification condition, compared to the duty-related justification condition.

Finally, this manipulation concerns justifications for irresponsible behaviour that are assumed in this study to affect blame-ratings, in that the duty condition is supposed to yield lower ratings than the pleasure condition. The duty condition is assumed, thus, to act as a mitigating factor, compared to the pleasure condition. Consequently, the two measures related, for one, to diminishing the responsibility of the agent by considering that he did not intend to harm or kill the victim and related, for the other, to mitigating circumstances, should also be affected by this manipulation. Responsibility should be considered as more diminished, and mitigating circumstances should be more favoured in the duty condition, compared to the pleasure condition.

As for the age factor, given its importance in determining responsibility in legal settings, normative expectations attached to this element should be more likely to affect rational criteria for responsibility. The age factor is not expected to affect moral responsibility ratings. An agent who is described as young (20 years old) may be attributed less consciousness and less voluntariness than an older agent (40 years old). This prediction is based on the belief, which is sometimes emphasized in legal settings, that a greater experience of life renders a person more conscious of the risks involved in

certain actions and more responsible of taking freely such a decision. Participants may also follow this reasoning. If this prediction is verified, respondents may also be more likely to favour the qualification of intentional homicide when the agent is described as older than when he is younger.

Factors underlying moral and legal responsibility

As for the factors we expect will be related to the moral and legal dimensions, the following predictions are made.

The moral dimension of responsibility is expected to be associated to factors that have previously been related to it, such as negative emotions and retributive punitive aims and responses. We also introduced measures related to justifications and counterfactual thinking (the agent should not have taken the risks he did and should have instead acted otherwise), as these dimensions have been associated by previous research to blame (Drozda-Senkowska & Orsero, 1993; Shaver, 1996; Quigley & Tedeschi, 1996; Wells & Gavanski, 1989). Hence, we expect justifications and counterfactual thinking to predict moral responsibility ratings, but to have no effect on legal responsibility ratings.

We expect the legal responsibility dimension to be more related to the legal qualification of intentional homicide, whereas the moral dimension of responsibility should not be related to such a qualification. Moreover, legal responsibility should not be associated to negative emotions and retributive punitive aims or responses, in conformity with the previous findings of this research. An absence of relationship between justifications and counterfactual thinking and the legal responsibility dimension is also anticipated, as mentioned above.

Effect of field of study and the manipulation of normative factors

First of all, since normative factors are assumed to have the same effect on law students and psychology students' responses at the level of mean ratings, we do not expect either the age or the justification condition to show an interaction effect with type

of study for any of the measures. Thus, any difference between law and psychology participants, in terms of mean ratings, should be explained solely by the type of study.

Moreover, participants' responses are not expected here to differ as a function of their field of study in their ratings of legal responsibility. Indeed, the cues that are rendered salient in the scenarios do not pertain to rational criteria used in law to ascribe liability, but are related to social norms. They should not be differently perceived by respondents depending on their field of study. Law students are expected to judge these normative factors, in terms of rational criteria, with the same intensity as psychology students. They should rate consciousness, voluntariness and intentionality in a similar manner as psychology students, whatever the condition of age and justification.

However, in line with findings in the previous studies, law students could be more attuned to the legal realities of the situation they are evaluating compared to psychology student. We, thus, expect them to be more likely to agree that this situation, whatever the age and justification condition, amounts to negligent homicide, compared to psychology students. The agent they have to judge in the scenario is described as causing a fatal collision due to his fatigue and this latter element is susceptible to be considered in Swiss law, as increasing the liability of a person, depending on the circumstances. Since the agent is also described as being aware of his drowsiness and driving in spite of it, this situation could amount to negligent homicide. It is therefore possible that law students will be more sensitive to this possibility and be more likely to use such a legal qualification than psychology students are. In the same vein, law students may also be more susceptible to agree that the agent acted out of negligence, compared to psychology students. Finally, at the level of correlates of legal responsibility, law students may be more likely to associate legal responsibility to legal qualifications in coherence with the legal realities of the situation they are evaluating than psychology students. In this same line of reasoning, we expect law students to be less likely to associate moral responsibility to legal qualifications than psychology students, because such associations would not be consistent with legal reasoning.

Moreover, ratings concerning moral responsibility measures should not be influenced by the type of study either, since law and psychology students are both expected to show similar ratings on these measures, whatever the condition they evaluated. The same

assumptions are made for all other factors that are related to moral responsibility ratings. At the correlational level, as we expect moral responsibility to be more related to negative emotions and punitive response, we also expect, in line with previous findings, that these associations will be more likely for psychology students, compared to law students. Moreover, in consistence with previous findings in study 2, psychology students could be also more likely to associate moral responsibility to legal qualifications, compared to law students.

Finally, as we introduced new measures in this study, which pertain to the respondents' perception of the criminal justice system, its processes, its actor's decision-making, as well as of causes of crimes, we expect to observe differences in these ratings due to the field of study. More specifically, we expect that, whatever the normative factor condition and given the nature of law students' training, law students' perceptions should reflect more satisfaction and agreement with the criminal justice system and its processes, compared to psychology students. Law students are also anticipated to agree more that an offender's personal characteristics and situation should affect legal actors' decision-making, compared to psychology students (who may favour more situational factors). Law students are expected to be less in favour of causes of crime that are related to societal deficiencies, compared to psychology students. This assumption is based on the reasoning that psychology students, due to their training, may be more attuned to the effects of society on people's behaviours.

2. Method

2.1. Participants

232 participants were included in this study, out of which 108 1st year psychology students (Median age = 21 years old; 85 female and 23 male) and 124 2nd year law students (Median age = 22 years old; 78 female and 45 male, one participant studying law did not indicate his gender) were recruited during their ex-cathedra classes. All were students at the University of Lausanne. They were randomly assigned to one of the eight

conditions manipulated in this study, as shown in Tables 3.1 and 3.2 below (one for each type of student group). The same instructions as in the previous study were given to the participants prior to this experiment.

Table 3.1.: Frequencies for psychology students by justification condition and by age condition

Justification condition x Age condition for psychology students	Justification condition			
	Work	Partying	Total	
Age condition	20	29	27	56
	40	25	27	52
Total		54	54	108

Table 3.2.: Frequencies for law students by justification condition and by age condition

Justification condition x Age condition for law students	Justification condition			
	Work	Partying	Total	
Age condition	20	29	33	62
	40	32	30	62
Total		61	63	124

2.2. Procedure

Questionnaire part 1: internality vs. externality tendency measure

The first part of the questionnaire used in this study included solely the internality and externality scale that was also submitted to respondents in study 2 (see Appendix 2a).

Questionnaire part 2: manipulation of normative factors of age and justifications for behaving irresponsibly

The second part comprised a scenario where the age of the protagonist of the fatal road traffic offense (Younger vs. Older) and the reason for which he had committed this offense (Work-related fatigue vs. Party-related fatigue) were manipulated (see Appendix 3a).

It describes a man

- Who is a) 20 (**Younger**) or b) 40 years old (**Older**)

- Who has spent the whole night
 - a) Working because he has to finance his studies (20 year old) or because he earns more money by working at night and has to take care of his children during the day (**Duty-related justification**) or

 - b) Partying in a discotheque with friends (**Younger**) or with colleagues (**Older**) (**Pleasure-related justification**)

- He is tired because
 - a) night-work is tiring and he never gets enough rest during the day to compensate for his fatigue because he has his university classes (**Older**) or because he has to take care of his children (**Younger**) (**Duty-related justification**)

Or

- b) he is going out often late at night these days and never gets enough rest during the day to compensate for this fatigue because of his university classes (**Younger**) or because he has to work during the day (**Older**) (**Pleasure-related justification**)
- Despite his fatigue, he must still drive 20 min to get back home and sleep. Out of fatigue, he loses control of his car in a road bend and crashes into a car coming from the opposite direction. The driver of the car he crashed into dies and the protagonist is hurt. (**Same for all conditions**)

This study had a mixed-design in which half of the participants of each field of study had to evaluate the scenario in a Younger*Duty-related justification condition (**YD**), in a Younger*Pleasure-related justification condition (**YP**), in an Older*Duty-related justification condition (**OD**) or in an Older*Pleasure-related justification condition (**OP**). Participants in all conditions had to rate the scenario on the same scales as the one used in the second part of the questionnaire used in the previous study (except for the measures of the responsibility of other protagonists which were not included in this study), as well as the following additional measures (see Appendix 3b).

1) A measure evaluating the sentence that would be the most just to punish the protagonist (no sentence at all, no prison sentence, a suspended prison sentence, 1 to 6 months prison time, 6 months to 3 years prison time, more than 3 years prison time). This measure was coded from 0 (no sentence at all) to 5 (more than 3 years prison time).

2) A measure evaluating to what extent one agrees with the proposition that the fact that the offender wanted to go home as soon as possible to go to sleep justifies the fact that he took the decision to drive when feeling drowsy". This measure, which is constituted of a 5-point Likert scale going from 1 to 5, will be referred to hereafter as the "justification measure".

3) A measure evaluating to what extent one agrees that the protagonist should have accepted the fact that he was tired and taken a little nap before driving, instead of taking the risk of creating an accident by driving when feeling drowsy. This measure, which is constituted of a 5-point Likert scale going from 1 to 5, will be referred to hereafter as the “counterfactual reasoning measure”.

Questionnaire part 3: attitudes concerning punitive aims, the criminal justice system and its processes and causes of crime (see Appendix 3c)

The third part of the questionnaire entailed general scales that allow us to understand better the role of justice-perception variables in anchoring participants’ different representations of responsibility. The development of all these scales was largely inspired and taken from scales developed originally and used by Languin, Kellerhals & Robert (2006) and (Parmentier, et al., 2004). Except for the scale concerning punitive aims, all other measures included in this part were new and pertained to the respondents’ perceptions of the criminal justice system, its decision-making processes and the various causes of crime. These measures were added given the importance of examining people’s attitudes towards the criminal justice system and its practices when studying attitudes about the law and legal socialization (Martin & Cohn, 2004).

These measures are the following:

1) A scale *on attitudes towards different punitive aims* used also in study 1. However, the format of the scale was slightly different from the one used in study 1 (see Appendix 3c, III). Instead of a 1 (totally disagree) to 5 (totally agree) Likert scale format, we used a -1 to +3 formats, in order to encourage participants to rate the extreme positions only if they really agreed with them. Thus, respondents were instructed to use the -1 rating, if they totally rejected this proposition, to use the 0 rating, if they were indifferent to this proposition, to use the 1 rating, if they agreed with it, to use the 2 rating, if they totally agreed with this proposition, and to use the 3 rating if they agreed unconditionally and with any reservations to this proposition.

This scale was used in terms of participants' responses to individual items, but also in terms of respondents' mean ratings yielded by the computation of items into three mean ratings. This computation was the result of the following procedure. All measures related to punitive aims were added in a factor analysis with the Varimax rotation method¹¹⁵, which produced three factors (49.42% total variance explained). The first one included measures related to retribution and incapacitation and was named Retribution-incapacitation (20.63%). The second factor, Deterrence, entailed all deterrence items (18.10%). The third factor was named restoration, because it included items describing restoration as a punitive aim (10.69%). The items belonging to each of these factors were then computed into three corresponding mean ratings: *Retribution-incapacitation* ($\alpha=.772$), *Deterrence* ($\alpha=.742$) and *Restoration* ($\alpha=.585$).

2) Different measures of respondents' *trust in different institutions*, such as schools, Federal Ministers, the justice system, the media, the police and religious institutions. The different items were used in their original format for the analyses.

3) Different measures of the *procedural justice perceptions* as well as of the *functioning of justice and its procedures*. These measures concern respondents' perceptions of issues, such as the procedural fairness of trials in Switzerland, the justice system's capacity to protect the fundamental rights of citizens, the fact that judges treat all citizens equally, as well as respondents' trust in the justice system or their opinion as to whether the justice system provides enough information about its work.

These measures were used in their original format, but were also used in the form of computed mean ratings produced with the following procedure. These different measures were submitted to a factor analysis, which yielded two main factors (57.20% of variance explained in total): procedural justice (35.14%) and functioning of justice (22.06%). The items corresponding to each factor were then computed into two mean ratings: *Mprocedural* ($\alpha=.787$) and *Mfunctioning* ($\alpha=.627$).

¹¹⁵ Since all factor analyses were carried out with the Varimax rotation method, we will hereafter just refer to the expression factor analysis when discussing about such analyses.

4) A measure of the *level of satisfaction about the functioning of justice*, which was used in the original format for the analyses.

5) A measure comprising items evaluating the *different factors that can influence a judge's decision*. This measure was used in the form of computed mean ratings yielded by the following factorial structure. All items pertaining to the scale of evaluation of the different factors that can influence a judge's decision were put in a factorial analysis that yielded three factors explaining 49.21 % of the total variance: individual-related factors (20.31%), facts-related factors (15.28%) and socio-demographic factors (13.62%). Items corresponding to each factor were then computed into 3 mean ratings: *Mindividual* ($\alpha=.707$), *Mfacts* ($\alpha=.629$) and *M socio* ($\alpha=.549$) that were subsequently used for the analyses in this study.

6) A measure that included items evaluating the *different causes of crime*. These different items were used in their original form for the analyses.

Finally, the same socio-demographic items used in all previous studies were also included here.

3. Results

In order to test our hypotheses, the following analyses were carried. MANOVAs were first of all carried out in order to test the effect of the justification and age condition and the type of study on moral and legal dimensions of responsibility, as well as on controllability and measures related to the sentence imposed, punitive responses, justifications and factors diminishing responsibility. Only main effects of study and justification and age conditions were examined, since no interaction effects were observed. A MANOVA testing the effect of the type of study and type of condition was also carried out on measures related to respondents' evaluations of different punitive aims and perceptions of the criminal justice system. Only main effects of type of study were observed and will be described. Regression analyses were then carried out to assess the

role of different predictors for moral and legal responsibility dimensions, as well as controllability. Finally, correlational analyses using the Pearson method, as well as partial correlations were then used to examine the relationships between the responsibility dimensions and some of their relevant correlates, for each experimental group formed by the combination of type of study and the justification condition.

3.1. Manipulation check

No differences in terms of frequency and plausibility were found between all conditions. This means that whatever the age condition, plausibility ($F(1,233) = .457; ns$) and frequency ($F(1, 233) = .226; ns$) ratings were similar. Plausibility ($F(1,233) = 2.61; ns$) and frequency ($F(1, 233) = .000; ns$) ratings were also similar between both fatigue conditions. Thus, the wording used to manipulate age and fatigue variables in the four different resulting conditions did not create any biases in terms of perceived credibility or probability of occurrence of the scenarios. Moreover, it is to be noted that mean ratings for plausibility ($m=4.55$) and frequency ($m=3.85$) are quite high, which provides additional support to the validity of the manipulations.

3.2. Effect of the manipulation of the normative factor of justification for irresponsible conduct

A 2 (justification condition) x 2 (age condition) x 2 (type of study) MANOVA was performed on all relevant measures in order to test for the effects of these different between-subjects-variables. As no interaction effects were found for any of the measures, we will only describe main effects of these three variables.

Results confirm the assumption that moral responsibility dimensions are influenced by the manipulation of justification for irresponsible behaviour, but not by the manipulation of the age of the protagonist. Thus, dimensions that are the most relevant to moral responsibility such as, being responsible of the death of the victim ($F(1, 231) =$

6.91; $p < .01$, $\eta = .03$), blame ($F(1, 231) = 9.84$; $p < .003$, $\eta = .04$), and accountability before justice ($F(1, 231) = 9.34$; $p < .004$, $\eta = .04$) were significantly influenced by the manipulation of the justification condition (see Table 3.3). Participants in the pleasure-related justification condition¹¹⁶ found the protagonist more responsible of the death of the victim than participants in the duty-related condition, they also found him more blameworthy than participants in the duty condition and they also rated his accountability before justice higher than participants in the duty condition.

Moreover, as expected the manipulation of normative expectations concerning justifications for irresponsible behaviour also affected controllability ratings, such as could have acted otherwise ($F(1, 231) = 12.40$; $p < .002$, $\eta = .05$), carelessness ($F(1, 231) = 8.38$; $p < .005$, $\eta = .04$), taking all necessary precautions to avoid what happened ($F(1, 231) = 10.75$; $p < .002$, $\eta = .05$) and acted out of negligence ($F(1, 231) = 19.19$; $p < .001$, $\eta = .08$). Mean ratings on these evaluations for each condition are shown in Table 3.3. Participants in the pleasure condition considered, significantly more than participants in the duty condition do, that the protagonist could have acted otherwise. Participants in the pleasure condition agreed also more that the protagonist was careless, did not take all necessary precautions to avoid what happened and acted out of negligence, than participants in the duty condition.

Table 3.3.: Mean ratings for moral responsibility and controllability measures by justification condition

Measures	Justification condition			
	Work		Party	
	Mean	S.d.*	Mean	S.d.*
Responsibility for the death of the victim	3.96	0.90	4.24	0.82
Blameworthiness	3.77	1.05	4.18	0.93
Accountability before justice	4.26	0.86	4.57	0.70
Could have acted otherwise	4.00	1.06	4.45	0.85
Carelessness	3.94	0.96	4.30	0.90
Not taking all necessary precautions	4.06	0.91	4.43	0.77
Acting out of negligence	3.82	1.02	4.35	0.86

* S.d. stands for standard deviation value

¹¹⁶ For purposes of conciseness, we will hereafter refer to “pleasure related justification condition” as “pleasure condition” and use the expression of “duty condition” for “duty-related justification condition”.

In line with our assumptions, a main effect of the reason for the justification condition was also observed for the two items pertaining to the diminution of responsibility: the protagonist benefits from mitigating circumstances ($F(1, 231) = 51.90; p < .001, \eta = .19$) and the fact that the protagonist did not want to kill or harm the victim is a factor diminishing his responsibility ($F(1, 231) = 4.20; p < .05, \eta = .02$). Mean ratings on these evaluations for each condition are shown in Table 3.4. Participants in the duty condition agreed more with mitigating circumstances and unintentional action diminishing responsibility than participants in the pleasure condition.

As anticipated, the justification condition also had a significant effect on the expression of negative emotions about the situation such as anger ($F(1, 232) = 10.52; p < .002, \eta = .05$) and revolt ($F(1, 232) = 10.02; p < .003, \eta = .04$). Mean ratings on these evaluations for each condition are shown in Table 3.4. Hence, participants in the pleasure condition tend to express more anger and revolt than participants in the duty condition do.

Let us add that, in conformity with our predictions, a main effect ($F(1, 233) = 7.74; p < .007, \eta = .03$) of the fatigue condition was observed for the sentence that would be considered the most just to punish the protagonist (see Table 3.4.). This means that participants in the pleasure condition rated higher sentences than participants in the duty condition.

Table 3.4.: Mean ratings for measures related to mitigation of responsibility, to negative emotions, and to the sentence imposed by type of study and justification condition

Measures	Justification condition			
	Work		Party	
	Mean	S.d.*	Mean	S.d.*
Mitigating circumstances	3.09	1.20	2.07	0.93
Diminution of responsibility	3.25	1.38	2.88	1.32
Anger	2.89	1.22	3.40	1.17
Revolt	3.25	1.11	3.70	1.04
Sentence imposed	2.32	1.00	2.71	1.10

** S.d. stands for standard deviation value

Finally, in line with our assumptions, most legal responsibility ratings were not affected by the manipulation of justification for irresponsible conduct. Thus, no significant differences ($F_{\text{vol}}(1, 233) = 1.68; ns$; $F_{\text{int}}(1, 233) = .637; ns$) between conditions were found for voluntariness ($m_{\text{duty}}=3.49$; $m_{\text{pleasure}}=3.69$) and intentionality ($m_{\text{duty}}=1.46$; $m_{\text{pleasure}}=1.56$) ratings. However, a main effect of the justification condition was observed for the consciousness ratings. Participants in the duty condition ($m=3.77$) gave higher ($F(1, 232) = 6.20; p < .02, \eta = .03$) ratings of consciousness than participants in the pleasure condition did ($m=3.40$).

3.3. Effect of the manipulation of the normative factor of age

As for the assumption that the age manipulation may affect legal responsibility dimensions, mixed results were obtained. The legal responsibility dimensions of consciousness, voluntariness and intentionality were not influenced by the age condition. However, other legal responsibility-related measures were influenced by the age condition.

In line with our predictions, a main effect of the manipulation of age on the qualification of intentional homicide was observed ($F(1, 231) = 5.30; p < .03, \eta = .02$). Thus, participants in the older condition ($m=1.48$) rated higher qualifications of intentional homicide than participants in the younger condition did ($m=1.22$). Let us however nuance this result, given that all mean ratings are low, whatever the age condition. Respondents were less likely to disagree with this qualification in the older condition, compared to the younger.

In addition, one should note that the age condition had a significant effect on the measures related to the ways to attenuate the harm done to the family of the victim. This main effect of age condition concerned apologies and explanations ($F(1, 232) = 7.19; p < .009, \eta = .03$), giving a sum of money as moral redress ($F(1, 232) = 6.69; p < .02, \eta = .03$) and acknowledging one's mistakes ($F(1, 232) = 5.23; p < .03, \eta = .02$). Thus, participants in the Younger condition agreed more than participants in the Older condition that the protagonist could attenuate the harm done to the family by apologies and explanations

($m_{\text{young}}=3.58$; $m_{\text{old}}=3.18$), as well as by acknowledging his mistakes ($m_{\text{young}}=4.06$; $m_{\text{old}}=3.70$). On the contrary, participants in the Older condition ($m=2.32$) agreed more than participants in the Younger condition ($m=1.98$) that the protagonist could attenuate the harm done to the family by giving a sum of money as moral redress.

3.4. Effect of the type of study on moral and legal responsibility dimensions

We had anticipated that law students would not rate the situation differently from psychology students in terms of their moral and legal responsibility ratings. As expected, participants did not assess the moral responsibility ratings differently depending on their field of study, except for accountability before justice ratings. A main effect of type of study for the evaluation of accountability before justice was indeed observed ($F(1, 231) = 18.57$; $p < .001$, $\eta = .08$). Law students, contrary to our predictions, ($m=4.63$) were more likely to agree that the agent should be accountable before justice for his actions, compared to psychology students ($m=4.20$). Moreover, law students did not rate legal responsibility criteria such as consciousness and voluntariness higher than psychology students, but they ($m=1.68$) did show higher intentionality ($F(1, 232) = 8.56$; $p < .005$, $\eta = .04$) ratings than psychology students ($m=1.32$). However, again, given these low mean ratings, this only means that law students were less likely to disagree that the agent acted intentionally than psychology students.

Yet, in line with our predictions law students ($m_{\text{negl}}=4.25$; $m_{\text{neghom}}=3.60$) rated the situation as entailing higher negligence ($F(1, 231) = 7.01$; $p < .01$, $\eta = .03$) and as being more constitutive of a negligent homicide ($F(1, 231) = 10.14$; $p < .003$, $\eta = .04$) than psychology students ($m_{\text{negl}}=3.92$; $m_{\text{neghom}}=3.08$). Let us add that, contrary to our predictions, they were ($m=1.52$) also more likely to qualify the situation of intentional homicide ($F(1, 232) = 9.01$; $p < .004$, $\eta = .04$), compared to psychology students ($m=1.18$). Yet, akin to previous findings about the intentionality ratings, the low mean ratings observed for both groups of students indicates that law students were less likely to

disagree that the situation could be qualified as an intentional homicide than psychology students.

Moreover, in conformity with our predictions, law students showed ratings that reflected more satisfaction and agreement with the criminal justice system and its procedures than for psychology students. Law students ($m=3.80$) expressed more ($F(1, 231) = 24.59; p <.001, \eta=.10$) trust in the justice system than psychology students ($m=3.28$). Moreover, they also express more agreement ($m_{\text{procgeneral}}=4.08; m_{\text{procparty}}=4.04; m_{\text{rights}}=4.06$) about the procedural fairness of trials in Switzerland in general ($F(1, 231) = 39.12; p <.001, \eta=.15$), the procedural fairness when being a party to a trial ($F(1, 231) = 41.88; p <.001, \eta=.16$) and that justice protects the fundamental rights of citizens ($F(1, 231) = 10.80; p <.002, \eta=.05$), compared to psychology students ($m_{\text{procgeneral}}=3.40; m_{\text{procparty}}=3.43; m_{\text{rights}}=3.72$). They ($m_{\text{equally}}=3.22; m_{\text{info}}=2.65$) also agree, more than psychology students ($m_{\text{equally}}=2.90; m_{\text{info}}=2.36$), that judges treat all citizens equally ($F(1, 231) = 5.59; p <.02, \eta=.02$) and that the system provides enough information about its work ($F(1, 231) = 6.27; p <.02, \eta=.03$).

These findings are also supported by the examination of mean ratings of justice perceptions that were yielded by the computation of items that were grouped into factors after a factorial analysis of all justice perception measures¹¹⁷. Law students ($m_{\text{proc}}=3.71; m_{\text{func}}=2.81$) showed higher ratings for Mprocedural ($F(1, 232) = 24.06; p <.001, \eta=.10$) and Mfunctioning ($F(1, 232) = 8.26; p <.05, \eta=.05$), compared to psychology students ($m_{\text{proc}}=3.31; m_{\text{func}}=2.55$). Another interesting result concerns the fact that law students ($m=3.57$) express more satisfaction ($F(1, 231) = 11.59; p <.002, \eta=.05$) about the functioning of the justice system, than psychology students ($m=3.26$).

Moreover, as expected, when examining mean ratings of the different factors that can influence a judge's decision¹¹⁸, law students ($m=3.56$) seem to agree more ($F(1, 232) = 16.73; p <.001, \eta=.07$) with factors that are linked to the individual offender's personal

¹¹⁷ Justice perception measures, after a factor analysis, were grouped into 2 main factors (57.20% of variance explained in total): procedural justice (35.14%) and functioning of justice (22.06%). The items corresponding to each factor were then computed into 2 mean ratings : Mprocedural ($\alpha=.787$) and Mfunctioning ($\alpha=.627$)

¹¹⁸ All items pertaining to the scale of evaluation of the different factors that can influence a judge's decision were put in a factorial analysis that yielded 3 factors explaining 49.21 % of the total variance: individual-related factors (20.31%), facts-related factors (15.28%) and socio-demographic factors (13.62%). Items corresponding to each factor were then computed into 3 mean ratings: Mindividual ($\alpha=.707$), Mfacts ($\alpha=.629$) and Msocio ($\alpha=.549$).

characteristics and situation (Mindividual), compared to psychology students ($m=3.19$). Conversely, psychology students ($m=4.11$) also agreed more ($F(1, 232) = 11.12; p < .002, \eta=.05$) with mean ratings related to facts (Mfacts) as being a factor of influence in a judge's decision-making than law students do ($m=3.79$).

Also in line with our expectations, psychology students seemed to evaluate possible causes of crime differently from law students, since they tended to favour more social causes than law students did. Indeed psychology students ($m_{moral}=3.94; m_{civic}=3.66$) agreed more that the loss of moral values ($F(1, 231) = 33.57; p < .001, \eta=.13$) and the loss of civic sense ($F(1, 231) = 24.65; p < .001, \eta=.10$) can be factors leading to crime than law students did ($m_{moral}=3.04; m_{civic}=2.92$). An interesting result that should also be noticed is that psychology students ($m=2.82$) tended to agree more than law students ($m=2.18$) that crime is the result of the criminal justice system not being harsh enough ($F(1, 231) = 18.92; p < .001, \eta=.08$).

One should also note that law students seem to support, more than psychology students, restorative ($F(1, 232) = 7.44; p < .008, \eta=.03$) and financial ($F(1, 232) = 15.84; p < .001, \eta=.07$) ways to attenuate the harm done. Thus they ($m_{restor}=3.58; m_{finan}=2.41$) agree more that apologies and explanations (restorative measure), as well as money as a moral redress, can attenuate harm done to the family, compared to psychology students ($m_{restor}=3.18; m_{finan}=1.89$). This is all the more interesting, since law students ($m=2.89$) also agree more ($F(1, 231) = 5.68; p < .02, \eta=.02$) that treating the offender is an aim of the penal sanction, than psychology students ($m=2.56$).

Some other interesting differences between law and psychology students are noteworthy to describe, even though they were not expected. They concern assessments of responses to attenuate the harm and attitudes concerning punitive aims.

Psychology students ($m=2.38$) agreed more than law students ($m=2.02$) that the protagonist should pay a fine ($F(1, 232) = 5.71; p < .02, \eta=.02$). They ($m=2.47$) also tended to agree, more than law students ($m=2.25$), with punitive aims¹¹⁹ that seek retribution and incapacitation ($F(1, 232) = 6.57; p < .02, \eta=.03$). However, they ($m=2.60$)

¹¹⁹ Punitive aims measures were added in a factor analysis, which resulted in 3 factors (49.42% total variance explained): Retribution-incapacitation (20.63%), Deterrence (18.10%) and Restoration (10.69%). The items belonging to each of these factors were then computed into three corresponding mean ratings: Retribution-incapacitation ($\alpha=.772$), Deterrence ($\alpha=.742$) and Restoration ($\alpha=.585$).

also favoured restorative aims more ($F(1, 232) = 4.80; p < .03, \eta = .02$) than law students ($m = 2.37$). The examination of individual punitive aims shows that psychology students ($m_{\text{pay}} = 3.39; m_{\text{prevent}} = 3.11; m_{\text{discipl}} = 2.76$) show significantly higher ratings, compared to law students ($m_{\text{pay}} = 2.98; m_{\text{prevent}} = 2.98; m_{\text{discipl}} = 2.46$), for the following punitive aims: making him pay ($F(1, 232) = 8.20; p < .006, \eta = .03$), prevent him from harming others ($F(1, 232) = 6.63; p < .02, \eta = .03$) and learn discipline ($F(1, 232) = 4.79; p < .04, \eta = .02$).

We now have a better understanding of the effects of the manipulation of normative factors on moral and legal responsibility, as well as on controllability, and the role of the type of study on such ratings. However, in line with findings in studies 1 and 2, we suspect that moral and legal dimensions, as well as controllability, are related differently to other relevant measures, depending on the type of study of respondents. Moreover, since the manipulation of the normative factor of justification for irresponsible conduct strongly affected the moral dimension of responsibility and controllability-related measures, we will also consider whether respondents relate relevant measures to the moral and legal responsibility dimensions, as well as controllability differently as a function of the justification condition.

More specifically, we will examine whether the different variables that have been found to be consistently related to moral responsibility (negative emotions, punitive responses and attitudes) in the two previous studies, along with justification and counterfactual thinking variables, show such a relationship when the salient cues manipulated in the scenario are normative. Moreover, we will also verify whether these variables, along with legal qualifications are related to legal responsibility when rational cues are not salient in the scenario that is evaluated. The predictive link between these different variables and controllability mean ratings will also be assessed. All these different relationships will, of course, be examined separately for all four groups of respondents yielded by the combination of the variables of justification condition and type of study.

3.5. Prediction of moral and legal responsibility dimensions

To begin with, a regression analysis carried out for all respondents will help us examine whether moral and legal responsibility mean ratings, as well as controllability mean ratings¹²⁰ were predicted by the same independent variables that were found to predict them in the previous studies. Moreover, we also tested whether justification and counterfactual reasoning assessments were related to moral responsibility. Anchoring variables that were newly introduced, such as justice perceptions and other justice-related measures, as well as socio-demographic variables, such as gender, socio-economic status, religious affiliation and political orientation were not included, since they were not found to be significantly related to any of the dependent variables.

Thus, the following predictors were entered in all the regression analyses that were carried out: negative emotions mean ratings¹²¹ (*Emoneg*), the retributive punitive aims mean rating¹²² (*Mretribution-incapacitation*), favouring prison as a manner of attenuating the harm done, the internality mean rating (*Minternal*¹²³), the assessment of the sentence to be imposed on the offender, the justification measure, the counterfactual thinking measure, the measures related to the qualifications of the situation of intentional and negligent homicide, the condition of justification for irresponsible conduct, as well as the type of study. These predictions are presented in Table 3.5.

The first analysis examined whether, as we assumed, negative emotions mean ratings (*Emoneg*), the tendency to internality (*Minternal*), punitive mean ratings related to retribution and incapacitation (*Mretribution-incapacitation*), the sentence level imposed to the agent, favouring prison as a response to attenuate the harm done, as well as

¹²⁰ These mean ratings resulted from the computation of items pertaining to each factor yielded by the factor analysis of all responsibility-related items. 3 factors came out of this analysis (60.27% of total variance explained): controllability (27.26%), legal responsibility (17.27%) and moral responsibility (15.73%). 3 mean ratings were then computed from the items corresponding to each factor: Mcontrol ($\alpha=.815$), Mlegal ($\alpha=.666$) and Mmoral ($\alpha=.663$).

¹²¹ These mean ratings were yielded by the computation of all negative emotions items into one mean rating (*Emoneg*), as well as the computation of all positive emotions items into another mean rating (*Emopos*). This computation was possible, since a previous factorial analysis of all emotions items had highlighted two factors accounting for 57.4% of the total variance: *Emoneg* (29.80%) and *Emopos* (27.57%). Alpha ratings for negative emotions mean ratings and positive emotions mean ratings were respectively, $\alpha=.700$ and $\alpha=.671$.

¹²² See note 119.

¹²³ These mean ratings resulted from computing the items pertaining to each factor yielded by the factor analysis of the internality and externality measures. 2 factors were highlighted (37.8% of total variance explained): externality (19.67%) and internality (18.11%). 2 mean ratings were then computed from the items corresponding to each factor: *Minternal* ($\alpha=.529$) and *Mexternal* ($\alpha=.574$).

assessments of justifications¹²⁴ and the counterfactual thinking assessment¹²⁵ predicted mean ratings of moral responsibility (**Mmoral**). As one can observe in Table 3.5., **Mmoral** was significantly predicted by high negative emotions, agreement with the negligent homicide and the intentional homicide qualification, favouring the imprisonment of the agent, counterfactual thinking, disagreement with the justification measure, as well as the justification condition. The strongest predictors of **Mmoral** were high negative feelings, agreeing with the negligent homicide qualification and disagreeing with the justification measure. However, in contradiction with our predictions, the tendency for internality, the sentence imposed and retributive punitive aims were not significant predictors of **Mmoral**. Moreover, contrary to our expectations, but in line with findings in study 2, **Mmoral** was predicted by agreeing with the negligent and intentional homicide qualifications. Let us add that moral responsibility was also predicted by the pleasure justification condition, which is not surprising, given the strong main effects of this condition observed for all moral responsibility measures in the previous section 3.2.

As for legal responsibility mean rating (**Mlegal**), we anticipated that they would be associated to legal qualification of intentional homicide and to respondents' type of study. We also assumed that **Mlegal** would not be predicted by factors related to moral responsibility, such as negative emotions, justifications, counterfactual thinking and retributive punitive aims and responses. Hence, we tested whether these predictions were verified. As a result, as shown in Table 3.5., we found that **Mlegal** was strongly predicted by the qualification of intentional homicide and agreement with the counterfactual reasoning. No other independent variables were significant predictors for **Mlegal**. Thus, contrary to our predictions, **Mlegal** was not only predicted by the intentional homicide qualification, but, it was also associated to counterfactual reasoning. The type of study was not a significant predictor as we had assumed it would be.

¹²⁴ This measure assesses the justification for taking risks that the agent wanted to go home and sleep as soon as possible. It will be hereafter referred to as the justification measure.

¹²⁵ The measure is about the agreement that the protagonist should have accepted the fact that he was tired and taken a little nap before driving, instead of taking the risk of creating an accident by driving when feeling drowsy. From now on this measure will be referred to as "the counterfactual reasoning measure or counterfactual thinking".

As for controllability, we predicted that it would share certain predictors with moral responsibility, given the associations found in the previous study between controllability and moral responsibility. Moreover, given the main effect of the justification condition on controllability-related measures highlighted in section 3.2, this condition could also be a significant predictor. A third regression analysis was, thus, performed to examine whether the justification condition, negative emotions, disagreement with the justification measure, the counterfactual thinking measure and the negligent homicide qualification predicted controllability mean ratings (**Mcontrol**). This analysis highlighted that Mcontrol was strongly predicted by all of these independent variables. Thus, Mcontrol seems to be sharing all of its predictors with Mmoral and has one predictor in common with Mlegal (the counterfactual thinking measure).

Table 3.5.: Multiple regression analyses: Prediction of moral and legal responsibility as well as controllability mean ratings

Independent variables	Mmoral	Mlegal	Mcontrol
Emoneg	.204**	.109	.171**
Negligent homicide qualification	.199**	.034	.209**
Intentional homicide qualification	.152*	.345***	.108
Justification	-.207***	.077	-.139*
Counterfactual thinking	.140*	.260***	.293***
Justification condition	.132*	-.056	.198**
Sentence	.098	.054	-.108
Prison as a way of attenuating the harm done	.128*	-.064	-.005
Minternal	.071	.099	.027
Retribution and incapacitation	-.116	-.012	.053
Type of study	.007	.009	.083
R ²	.429	.233	.346
Adjusted R ²	.398	.195	.313
R	.655	.483	.588

*** p <.001, ** p <.01, * p <.05

Given these regression analyses results, we will now examine the following relationships separately for the four groups of respondents constituted by the combination of type of study and justification condition. More specifically, the linkages between moral responsibility, punitive responses and attitudes and negative emotions will be examined, because we suspect that they may be more likely for psychology students,

compared to law students, given findings in the previous studies. Similarly, the relationship between respectively, the justification measure, the counterfactual thinking measure and, moral and legal responsibility, as well as controllability, will also be examined separately for each group of respondents as a function of their type of study and the justification condition. Finally, the relationships between legal qualifications and moral and legal responsibility, as well as the linkages between the two responsibility dimensions and controllability will also be verified again with the same assumption, supported by findings in the previous studies, that not all groups of respondents will associate these in the same manner.

3.6. Correlates of moral responsibility and the effect of type of study and justification condition on these linkages

3.6.1. Punitive aims negative emotions and their relationship to moral responsibility

Regression analyses indicate that moral responsibility was related to the retributive response of imprisonment to attenuate the harm done to the victim's family and to negative emotions, but not to the retributive and incapacitation punitive aims mean ratings. This absence of relationship for the latter variable, although it contradicts our assumptions, was already found in study 1. In study, retributive punitive aims were found to be related to blameworthiness only for law students in the unconscious negligence condition. Negative emotions in that study did not have any significant effect on this relationship. We shall examine the linkages between retributive punitive aims, negative emotions and moral responsibility in this study to see whether differences as a function of type of study and justification condition can be highlighted.

As psychology students were found to be more likely to associate negative emotions to moral responsibility in the previous study, we began by examining whether such differences between student groups could be also found in this study. This finding was

also observed in this study, since psychology students in both justification conditions were the only respondent groups to associate moral responsibility to negative emotions ($r_{Wpsy} = .391, p < .004$; $r_{Ppsy} = .579, p < .001$). Law students never made this relationship. As retributive punitive attitudes were not found to be associated to moral responsibility in the regression analyses, we checked whether this lack of association was generalised to all groups of respondents. Correlational analyses show that non-significant relationships exist for all groups of respondents. However, as the rating encompassing retributive punitive aims also include some measures related to incapacitation, this lack of significant associations could be due to the incapacitation measures clouding the effect of retributive evaluations. We thus, verified these linkages for a purely retributive attitude: *making the person suffer until expiation*. As it turns out, moral responsibility and making the person suffer were significantly related only for psychology students in the party justification condition ($r_{Ppsy} = .284, p < .04$). No other group of respondents associated those evaluations. Moreover, when controlling for the effect of negative emotions, the significant association observed for psychology students in the party justification condition disappeared.

3.6.2. Punitive responses and their relationship to moral responsibility and negative emotions

Two additional measures related to punitive attitudes and responses were included in this study, compared to the previous studies. These concern the sentence to be imposed to the agent and the assessment as to whether the justice system is not harsh enough. These two measures could be important variables to take into account when ascribing moral responsibility, given the linkages between blame, retributive aims and imposing a concrete sentence (Graham et al., 1997). Moreover, considering that the justice system is not harsh enough could be related to the link between negative emotions and retributive punitive aims, since Goldberg et al. (1999) suggested that people can get angrier and more punitive if they think that justice has not been served. The role of these two variables in the associations between moral responsibility, punitive responses and negative emotions will, thus, be assessed.

Let us begin by examining the linkages between moral responsibility and the punitive responses of respectively, favouring prison and imposing a concrete sentence. Findings show that both these linkages were only observed for psychology students. Moral responsibility was only significantly associated to favouring the imprisonment of the agent for psychology students in the party justification condition ($r_{\text{Ppsy}} = .384, p < .005$); no other significant associations were found for the other groups of respondents. Moreover, psychology students significantly related moral responsibility to imposing a concrete sentence in both conditions ($r_{\text{Wpsy}} = .289, p < .04$; $r_{\text{Ppsy}} = .492, p < .001$), whereas law students never made such an association. Thus, law students were less likely to relate moral responsibility to punitive responses in both conditions, compared to psychology students. Further analyses show that the significant associations found for psychology students in the party justification condition between moral responsibility and prison time disappear when partialling out the effect of negative emotions. Moreover, the associations between moral responsibility and imposing a sentence on the agent could, for psychology students who are making those evaluations in the work-related justification condition, depend on their tendency to express negative emotions and to favour the imprisonment of the agent. This influence of negative emotions and punitive responses was however not observed for psychology students responding in the party-related justification condition. Indeed, when partialling out the effect of negative emotions, this association diminishes significantly for psychology students in the work-related justification condition, but does not affect as much the linkages for the psychology students in the pleasure-related justification condition ($r_{\text{Ppsy}} = .328, p < .02$). The same effect is found when partialling out for favouring the imprisonment of the agent ($r_{\text{Ppsy}} = .405, p < .004$). Thus, moral responsibility is more likely to be related to the imposition of a concrete sentence, independently from the influence of negative emotions and favouring a punitive response, for psychology students in the party-related justification condition. This association is however more unlikely when high negative emotions and punitive responses are not favoured for psychology students in the work-related justification condition.

As for the relationship between moral responsibility ratings, considering that the justice system is not harsh enough and feeling negative emotions, the following results were observed. Moral responsibility was only found to be related to considering that the justice system is not harsh enough for psychology students in the work-related justification condition ($r_{Wpsy} = .360, p < .009$). However, this linkage diminishes significantly for psychology students in the work justification condition when controlling for negative emotions. As for the retributive punitive aim of making the agent suffer, this attitude was found to be significantly related to considering the criminal justice system is not harsh enough for all respondents ($r_{Wpsy} = .291, p < .04$; $r_{Ppsy} = .433, p < .002$; $r_{Wlaw} = .266, p < .04$), except law students in the party-related justification condition. However, when partialling out the effect of negative emotions, one can observe that this effect significantly diminishes, for all respondents in the work-related justification condition, whereas it remains significant for psychology students in the pleasure justification condition ($r_{Ppsy} = .382, p < .006$). Thus, respondents in the work-related condition may be more likely to associate considering that justice is too lenient to being more likely to want the offender to suffer until expiation especially if they feel negative emotions concerning the agent's actions. But psychology students in the pleasure condition may be more likely to associate perceptions of leniency of the criminal justice system to favouring retributive attitudes, independently of the level of negative emotions they may feel. Moreover, let us also make the observation that, psychology students, in the pleasure condition, associate more strongly perceptions of leniency and making the agent suffer, than respondents from the other groups, as shown by the r values corresponding to these different linkages.

3.6.3. Moral responsibility and its relationship to public denunciation and punitive responses

Since moral responsibility was found to be strongly related to public denunciation, especially for psychology students, in the previous study, we examined whether this association was also more likely for psychology students, compared to law students in this study. It turns out that this relationship was observed for psychology students in both conditions ($r_{Wpsy} = .671, p < .001$; $r_{Ppsy} = .597, p < .001$), as well as for law students in the

work-related justification condition ($r_{Wlaw} = .430, p < .001$). Moreover, this relationship was not affected by controlling for the effect of favouring prison or imposing a concrete sentence. Let us add that when considering the association between public denunciation and imposing a concrete sentence, only psychology students seem to reason in such a manner ($r_{Wpsy} = .476, p < .001$; $r_{Ppsy} = .361, p < .008$). However, these significant associations disappear for psychology students in the party-related justification condition, when controlling for the effect of moral responsibility, whereas they remain for psychology students in the work-related justification condition ($r_{Wpsy} = .398, p < .003$).

3.6.4. Moral responsibility, controllability and their relationship to disagreement with the justification measure

Regression analyses show that moral responsibility and controllability are both predicted by the justification measure and the justification condition. As discussed in section 3.2, most moral responsibility measures and all controllability measures were given higher ratings in the pleasure justification condition, compared to the duty justification condition. However, the effect of the justification condition was generally stronger for the controllability measures, than for the blame-related measures. This is even clearer when one compares the main effect of the justification condition on mean ratings of moral responsibility and controllability. The condition's influence on M_{moral} ($F(1, 233) = 11.76; p < .002, \eta = .05$) is weaker than the one on $M_{control}$ ($F(1, 233) = 18.71; p < .001, \eta = .08$), as demonstrated by the F values and the effect sizes.

We thus suspect that the relationship between moral responsibility and the justification measure may depend strongly on controllability, especially for respondents in the pleasure justification condition. Correlational analyses for each of the four groups of respondents were thus carried out to explore this possibility. Moral responsibility was negatively associated to the justification measure for all respondents ($r_{Ppsy} = -.386, p < .005$; $r_{Wlaw} = -.375, p < .004$; $r_{Plaw} = -.365, p < .004$), except for psychology students in the work-related justification condition. However, when controlling for controllability, all associations disappear for respondents in the party justification condition, whereas they remain for law students in the work-related justification condition ($r_{Wlaw} = -.384, p <$

.004). The fact that controllability did not have any effect of the association between moral responsibility and the justification condition for law students in the work justification condition could be explained by the fact that this is the only group of respondents who does not associate controllability ratings to the justification measure. All other groups of respondents associated controllability to disagreement with the justification measure ($r_{Wpsy} = -.288, p < .04$; $r_{Ppsy} = -.362, p < .008$; $r_{Plaw} = -.386, p < .003$). Let us add here that the association between controllability and the justification measure is not very surprising if one takes into account the following information. The justification measure concerns the agreement with the fact that the protagonist wanting to go home quickly justifies the fact that he decided to drive even though he was tired. Moreover, measures that were computed to yield this controllability mean rating concern such issues as the possibilities of acting otherwise and necessary precautions taken to avoid the harmful consequences. One notices that such measures contradict the justification measure, in terms of their formulation. The negative linkage between controllability and the justification measure in that sense is coherent.

3.6.5. Moral responsibility, controllability and their relationship to the counterfactual thinking

Moral responsibility and controllability were both found to be associated to the counterfactual thinking measure in previous regression analyses. As counterfactual thinking is a psychological concept that translates the tendency for human beings to imagine alternatives to real life events, that is, to think in terms of “what if”, we suspect that this relationship may be more likely to be found for psychology students (as they are assumed to respond in manner which is more characteristic of ordinary reasoning), compared to law students.

Findings provide support for such an assumption, since only psychology students significantly related counterfactual reasoning to moral responsibility ($r_{Wpsy} = .519, p < .001$; $r_{Ppsy} = .483, p < .001$). However, controllability seems to be a crucial factor for such an association to be more likely, since partialling out for controllability makes these associations diminish significantly.

3.6.6. Moral responsibility, controllability and their relationship to negative emotions

Since both moral responsibility and controllability were associated to negative emotions in regression analyses, we examined these associations for all four groups of respondents. We suspected that negative emotions, likewise to moral responsibility, would be more likely to be associated to controllability for psychology students, compared to law students. This expectation was supported by the finding of significant associations only for psychology students ($r_{W_{psy}} = .371, p < .007$; $r_{P_{psy}} = .432, p < .002$). Yet, these relationships for psychology students diminished significantly when partialling out the effect of moral responsibility.

3.7. Moral and legal responsibility and their relationship to legal qualifications and counterfactual thinking as a function of type of study and justification condition

3.7.1. Moral and legal responsibility and their relationship to legal qualifications

Findings in studies 1 and 2 suggest that psychology students are more likely to associate moral responsibility to legal qualifications, compared to law students. Legal qualifications were also more likely to be consistently related to legal responsibility, in coherence with the culpability level manipulated and legal reasoning, by law students, compared to psychology students. We will examine whether these findings can also be observed in this study, where normative cues are manipulated and legal cues are no more salient. Since the scenarios used in this study are more likely to be characterised as amounting to negligent homicide, we will only examine relationships concerning this qualification and the accident qualification.

In line with previous findings, psychology students were the only respondents to associate moral responsibility to the negligent homicide qualification in both justification conditions ($r_{W_{psy}} = .413, p < .003$; $r_{P_{psy}} = .667, p < .001$).

As for the relationship between legal responsibility and the legal qualification of negligent homicide, the following results indicate that psychology and law students may be basing such associations on different processes. Legal responsibility was related to negligent homicide by all groups of respondents, except for law students in the work-related condition. However, psychology students associated these evaluations positively ($r_{Wpsy} = .281, p < .05$; $r_{Ppsy} = .324, p < .02$), whereas law students in the pleasure condition associated these negatively ($r_{Plaw} = -.274, p < .04$). Moreover, when controlling for controllability, these positive associations observed for psychology students diminished significantly, whereas the negative relationship for law students not only persisted, but became stronger ($r_{Plaw} = -.335, p < .009$).

Finally, let us add that the accident qualification was negatively associated to moral responsibility by all respondents only for the pleasure related condition ($r_{Ppsy} = -.301, p < .03$; $r_{Plaw} = -.315, p < .02$). Respondents in the work-related condition did not make such associations. However, when controlling for negative emotions, this association diminished significantly for psychology students, whereas it persisted for law students ($r_{Plaw} = -.315, p < .02$).

3.7.2. Moral and legal responsibility dimensions and their relationship to counterfactual thinking

Contrary to what had been expected and in addition to an association with moral responsibility, counterfactual thinking was also related to legal responsibility. Correlational analyses across all four groups of respondents show that most respondents made this association. Only law students in the party-related justification condition did not relate these evaluations ($r_{Wpsy} = .325, p < .02$; $r_{Ppsy} = .385, p < .005$; $r_{Wlaw} = .322, p < .02$). However, when controlling for the effect of moral responsibility, this association diminishes significantly for psychology students, whereas it persists for law students in the work-related justification condition ($r_{Wlaw} = .279, p < .03$).

3.7.3. Moral and legal responsibility dimensions and their relationship to controllability

As moral and legal dimensions of responsibility were associated to controllability in study 2, we may make such observations also in this study. Likewise to findings in study 2, controllability and legal responsibility should be related to each other for all respondents, but this association may be subject to the influence of moral responsibility. As moral responsibility and legal responsibility, as well as controllability were mostly (but for accountability before justice and intentionality) rated in a similar fashion by law and psychology students in section 3.4, we do not expect respondents to associate these two dimensions to controllability in a different manner.

Moral responsibility was significantly and strongly associated to controllability by all respondents ($r_{W_{psy}} = .628, p < .001$; $r_{P_{psy}} = .594, p < .001$; $r_{W_{law}} = .484, p < .001$; $r_{P_{law}} = .652, p < .001$). Legal responsibility was also significantly related to controllability across all groups of respondents, although less strongly than the linkages observed between $M_{control}$ and M_{moral} ($r_{W_{psy}} = .278, p < .05$; $r_{P_{psy}} = .362, p < .008$; $r_{W_{law}} = .329, p < .02$; $r_{P_{law}} = .368, p < .004$). Let us add in this same vein that the linkages between M_{legal} and $M_{control}$ could depend be likely to depend strongly on moral responsibility evaluations, since these associations significantly diminish for across all groups of respondents, when controlling for the effect of M_{moral} . However, the linkages between M_{moral} and $M_{control}$ are less likely to depend on the evaluation of legal responsibility, since partialling out the effect of M_{legal} does not affect the associations between M_{moral} and $M_{control}$ observed for all four groups of respondents ($r_{W_{psy}} = .589, p < .001$; $r_{P_{psy}} = .521, p < .001$; $r_{W_{law}} = .427, p < .002$; $r_{P_{law}} = .591, p < .001$).

Finally, let us also mention that moral and legal responsibility were significantly and strongly associated by all respondents ($r_{W_{psy}} = .512, p < .001$; $r_{P_{psy}} = .436, p < .002$; $r_{W_{law}} = .306, p < .02$; $r_{P_{law}} = .407, p < .002$). However, when controlling for $M_{control}$, this association only remained significant for psychology students ($r_{W_{psy}} = .452, p < .002$; $r_{P_{psy}} = .295, p < .04$).

3.8. Additional analyses concerning punitive attitudes

Like in study 1, mean ratings for all punitive aims were examined. Interesting differences again were found in terms of types of punitive aims that reached most agreement from respondents. A hierarchical cluster analysis using the Ward's method highlighted three distinct groups of items according to mean ratings. The first group included items related to special and general deterrence and was called *deterrence*. The second group entailed items concerning incapacitation and restoration. We will refer to this group of measures as *incapacitation to protect society*. The third group of items is solely related to *retribution* and will thus be referred to using this term. T-test analyses confirmed that these three groups of measures were significantly differently rated by respondents. These differences in ratings were found both for law and psychology students. Mean ratings for each group of items and for each student group are displayed in Table 3.6. As law and psychology students rated these different mean ratings in a significant way and significantly differentiated between these ratings, we will only present the t-test values for all respondents, without presenting these for each group of respondents depending on the type of study (see footnotes below for those). *Deterrence* motives seem to be significantly more favoured by respondents, compared to *incapacitation to protect society* ($t(232) = 17.51, p < .001$)¹²⁶ or *retribution* ($t(232) = 26.82, p < .001$)¹²⁷. Moreover, *incapacitation to protect society* also reached significantly ($t(232) = 19.13, p < .001$)¹²⁸ more agreement than *retribution*.

Table 3.6.: Mean ratings for deterrence, incapacitation to protect society and retribution punitive goals for each group of students

Punitive goals	Total	Law students		Psychology students	
	Mean	Mean	S.d.*	Mean	S.d.*
Deterrence	3.42	3.45	0.57	3.38	0.63
Incapacitation	2.72	2.69	0.54	2.75	0.61
Retribution	1.88	1.80	0.72	1.97	0.77

* S.d. stands for standard deviation value

¹²⁶ Difference between deterrence and incapacitation: Law students ($t(124) = 14.09, p < .001$); Psychology students ($t(108) = 10.58, p < .001$).

¹²⁷ Difference between deterrence and retribution: Law students ($t(124) = 21.19, p < .001$); Psychology students ($t(108) = 16.73, p < .001$).

¹²⁸ Difference between retribution and incapacitation: Law students ($t(124) = 14.81, p < .001$); Psychology students ($t(108) = 12.24, p < .001$).

As in study 1, retribution was much less favoured than deterrence or incapacitation to protect the society. Moreover, when categorizing participants according to whether they were High or Low on retributive attitudes¹²⁹, one-third (n=76) of respondents were found to favour retribution highly. However, Chi-square analyses demonstrated that these High retributive attitudes were just as likely to be found for psychology students, than in law students. A proportionate amount of each of these student groups were found in the High retribution category ($\chi^2(1, 232) = 1.68, ns$).

Moreover, findings in section 3.7.2 suggest that considering that the justice system is not harsh enough was related to retributive punitive attitudes and this association seemed to be especially likely for psychology students in the pleasure condition. Since psychology students were also found to be more likely to agree that the criminal justice system is too lenient compared to law students, we checked whether psychology students were more likely than other respondents to rate high retribution and agree that the justice system is too lenient. We, thus, categorized respondents in terms of whether they agreed or disagreed that the justice system was too lenient¹³⁰ and compared high and low justice leniency and retribution groups separately for each group of students. As it turns out, Chi-Square analyses for each student group suggest that psychology students are more likely to be categorized as High retribution and High justice is too lenient ($\chi^2(1, 107) = 6.05, p < .02$), compared to law students ($\chi^2(1, 124) = 3.10, ns$). Thus, more than half (57.7%, n=15) of the psychology students who agreed that the justice system was not harsh enough (n=26) were also more likely to be in the category of respondents who favoured retribution highly.

Let us add that retribution is strongly related to the sentence imposed for both psychology ($r = .416, p < .001$) and law students ($r = .191, p < .04$), whereas no significant relationships were found, however, between utilitarian motives, such as deterrence, and the sentence imposed. Such significant results were also found for the link between retribution and favouring prison time for both groups of students ($r_{psy} =$

¹²⁹ In order to produce such a categorization, retribution mean ratings were computed into two categories: High retribution (for ratings between 3 and 5) and low retribution (for ratings between 1 and 2).

¹³⁰ Respondents' ratings that the justice system was not harsh enough was computed into two categories: High leniency (for ratings between 4 and 5) and low leniency (for ratings between 1 and 3)

.327, $p < .002$; $r_{\text{law}} = .213$, $p < .02$), but not between deterrence and this punitive response.

3.9. Additional findings on the effect of socio-demographic variables on perceptions of the criminal justice system

Since perceptions of the criminal justice system were not significant predictors of moral and legal responsibility ratings or controllability and since such perceptions were strongly affected by the type of study, we examined whether religious affiliation, political orientation and socio-economic status (SES) had an effect on such perceptions. We will only describe the significant main effects that were found for political orientation and religious practices and beliefs. No interaction effects between these two socio-demographic variables and type of study were observed for these different perceptions of the justice system.

Political orientation had as strong effect on the justice perceptions and perceptions of the factors that should influence legal decision-making. Respondents who consider belonging to the political right ($m_{\text{proc}}=3.84$; $m_{\text{funct}}=2.97$) are more likely to agree with the procedural fairness of justice in Switzerland ($M_{\text{procedural}}$; $F(1,223) = 7.50$; $p < .002$, $\eta=.06$) and are more satisfied with the functioning of the justice system ($M_{\text{functioning}}$; $F(1,223) = 5.45$; $p < .006$, $\eta=.05$), compared to respondents from the left ($m_{\text{proc}}=3.42$; $m_{\text{funct}}=2.57$) and centre ($m_{\text{proc}}=3.50$; $m_{\text{funct}}=2.65$) orientations. Moreover, respondents from a left orientation ($m=3.57$) are significantly ($F(1,223) = 5.96$; $p < .004$, $\eta=.05$) more in favour that factors related to the individual should influence legal decision-making than respondents from the centre ($m=3.32$) or right political orientation ($m=3.18$). Post-hoc analyses with the Scheffe method show it is especially respondents from the left orientation who are opposed significantly to respondents from the left orientation concerning their evaluation of the factors influencing legal decisions related to the individual ($p < .008$) and the functioning of justice ($p < .006$). Such post-hoc analyses also show that evaluations of procedural justice measures especially oppose respondents from the right to respondents from the centre ($p < .02$) and left ($p < .002$) political orientation.

Religious affiliation also had an influence on perceptions concerning the functioning of justice and the factors influencing legal decision-making that are related to facts. Respondents who considered that they were believers and practiced religion ($m=3.51$) were significantly ($F(1,228) = 3.37; p < .04, \eta=.03$) less likely to favour factors related to facts as a source of influence on legal decision-making, compared to respondents who were believers, but do not practice their religion ($m=3.98$) or who are not believers ($m=3.97$). Moreover, respondents who consider that they are believers but who do not practice their religion ($m=2.85$) are significantly ($F(1,228) = 3.38; p < .04, \eta=.03$) more likely to be satisfied with the functioning of the justice system than respondents who are not believers ($m=2.59$). Post-hoc analyses with the Scheffe method show it is especially respondents who are believers and practice their beliefs who are opposed significantly to respondents from non-believers concerning their evaluation of the factors influencing legal decisions related to the individual ($p < .04$). Moreover, these post-hoc analyses also show that satisfaction with the functioning of justice especially opposes respondents who are believers but who do not practice their beliefs to non-believers ($p < .04$).

4. Conclusions

4.1. The effect of the manipulation of justification for irresponsible conduct

This study aimed at examining the effect of the salience of social norm-related cues in a scenario on responsibility ratings. The main hypothesis was that a normative cue that is generally not considered important in the legal setting, such as a justification for irresponsible conduct, should not affect legal responsibility criteria, but should strongly affect moral responsibility measures. This hypothesis was supported by the following findings.

The fact of presenting the protagonist as being tired because he partied all night, no matter what his age is, yielded harsher moral responsibility and controllability judgments compared to when the protagonist is presented as tired because he worked all night. This harshness is also reflected in higher prison sentences being given to the agent, as well as in higher expressions of negative emotions, in the pleasure condition than in duty condition.

However, the fact of having worked all night seems to contribute to the feeling that the fact that there was no intent to hurt or kill the victim diminishes the agent's responsibility and that he benefits from mitigating circumstances, more than if the agent partied all night. Thus, in the eyes of the participants, working all night is a mitigating factor and a reason for fatigue that makes the protagonist's acts less culpable. Akin to with Kelley's (1972) findings, working all night may have served a higher moral goal which may have mitigated the responsibility that was attributed to the agent, compared to the hedonistic reason for having stayed up all night. These results are also similar to Melburg & Tedeschi's (1981) findings that an ambulance driver who is speeding and who hits a child is considered less blameworthy, if he was transporting a critically ill patient, compared to when the patient presented only a minor illness. Moreover, the fact that the agent had a reason implying maturity and responsibility for working all night (pay his studies or take care of the children) may explain why evaluations were less harsh

towards the agent in the duty condition, than in the pleasure condition. The agent's role as a parent who has to work all night to take care of his children or as a citizen who has to work all night in order to pay for his studies may have mitigated the responsibility he was attributed. Conversely, the person who partied all night, not only behaved irresponsibly by driving when feeling drowsy, but behaved also in a manner that reflected a lack of responsibility for his duty, as an employee or as a student (i.e. staying up all night to party instead of going to bed). Here, this double irresponsibility may have acted as an aggravating factor and, thus, yielded harsher judgments. Thus, the conflict between normative expectations concerning duties and the agent's responsibility with regard to the offense he committed may have played a considerable role in yielding different results depending on the condition of the scenario, in conformity with previous results (Heitzmann, 2007).

Legal responsibility ratings, on the other hand, were not influenced by the fatigue condition, except for the consciousness measure. The fact that the agent who worked all night is considered as more aware of the risks he is taking, than a person who parties all night, could be simply due to the participants' assumption that he is more aware of the effects of fatigue on his driving, since he is working at night regularly. Another more general explanation is that the person who stayed up all night because of work can be considered as more responsible (thus, more conscious of the probability of risks), than the person who did not sleep all night because of hedonistic reasons.

4.2. The effect of the manipulation of the agent's age

In conformity with our predictions, moral responsibility ratings and factors related to these ratings such as emotions, justifications and counterfactual reasoning were not influenced by the age condition. Legal responsibility ratings were not affected by the age condition either, contrary to what we expected. However, legal qualifications related to legal responsibility were influenced by age. The older protagonist's actions were more likely to be qualified as intentional homicide than the younger one's behaviours. This finding can be related to previous research findings that demonstrated that attributions of

intent were higher for older offenders than for younger offenders (Prygotzki & Mullet, 1997). This may be because respondents consider that a fully mature adult may show more reflection, more control over his behaviour and less impulsivity than younger adults. However, this effect may only be very minimal, since ratings for all age conditions were very low, showing little agreement for this qualification in all cases.

Moreover, some responses that could attenuate the harm done to the victim's family were also affected by the manipulation of age. Restorative measures, such as apologies and explanations, as well as acknowledging one's mistakes, were considered to attenuate harm done more for the younger protagonist than for the older one. However, participants also made the difference of age for financial measures, since they considered money as moral redress more susceptible to attenuate harm for an older protagonist than for a younger one. Thus, participants seem to have taken into account the age of the offender as a factor that could affect more the sentence imposed to the offender, than the actual level of culpability of his actions. These findings are in conformity to the practices in the legal system, since the new federal code of legal procedures only provides the possibility for restorative forms of sentencing, such as mediation, for minors.

Finally, let us add that the fact that all respondents were young adults. This uniformity in age group of the sample used in the study may, thus, have biased results concerning the effect of the age factor. If most respondents were mature adults, the manipulation of the agent's age could have brought more effects in terms of legal criteria of consciousness, voluntariness and intentionality. Older respondents would have maybe attributed less consciousness and voluntariness to a younger agent, compared to an older agent, because they would have referred to their own past experience and compared it to their present consciousness of the probability of risks.

4.3. Effect of the type of study on moral and legal responsibility ratings and related measures

In line with our predictions, all moral responsibility ratings, except the accountability before justice measure, were unaffected by the participants' field of study. The only

blame-related measure that was rated differently as a function of field of study was accountability before justice, since law students tended to rate this measure higher than psychology students did. This difference may indicate that law students understood better the legal implications of the situation they had to rate, whatever the condition of justification and age. This interpretation is also supported by the finding that law students were also more likely than psychology students were to consider that the agent intentionally caused the accident, that he acted out of negligence and that this situation can be qualified of negligent and intentional homicide. These results indicate that law students may have been more susceptible, compared to psychology students, to perceive that this situation may not be just an accident and may amount to a legal liability for negligence or intentional conduct.

A noteworthy result to highlight also concerning law students is their more positive perception of the criminal justice system and its procedures, compared to psychology students. They are less critical of this system and show more support for its role in society than psychology students. This is logical, given that they are at the beginning of their studies and because they cannot reject an institution, which they will, probably, serve in the future. They have to justify its role, because they have to justify their choice of study. They may thus identify more to the justice system and its principles than psychology students do. In that sense, they also support, more than psychology students do, the idea that apologies and explanations, as well as money as a moral redress can attenuate the harm done to the family of the victim. They also are more in favour of the idea that the treatment of the offender should be a goal when imposing a penal sanction.

As for the psychology students, they were less sensitive to the legal implications of the situation in terms of liability to punishment, as shown by their lower ratings of negligence, intentionality, accountability before justice, as well as of qualifications of negligent and intentional homicide, compared to their law counterparts. The fact that psychology students favour more paying a fine as a response that may attenuate the harm done to the victim's family than law students suggests that the former student group may consider the situation more as an accident with minimal legal consequences than the

latter student group does. Moreover, psychology students tend more to agree with punitive aims related to retribution and incapacitation than law students (who favour more rehabilitation-oriented aims). Psychology students also favoured social-norms-related causes, such as loss of civic sense and moral values, to explain crime more than law students do. Finally, they were also more in agreement with factors influencing a judges' decision that are related to the facts and were less susceptible to agree with factors related to the individual. Law students showed the opposite dynamic.

4.4. Correlates of the moral dimension of responsibility and the influence of the type of study

In line with our assumptions, factors related to negative emotions, to punitive attitudes and responses, as well as to justifications were highlighted as associated to the dimension of moral responsibility. Moreover, as expected, several findings suggest that such associations were globally more likely for psychology students, compared to law students.

4.4.1. Responsibility in ordinary reasoning: Moral and emotional outrage responses

Mirroring findings from the previous studies, several findings bring further evidence to the assumption that a tendency for a moral and emotional outrage evaluation could be more likely to characterize psychology students' patterns of response, compared to law students. Psychology students were more likely to ascribe moral responsibility to the agent, when they thinking about this event made them feel intense negative emotions. Law students did not show such patterns of responses. Moreover, psychology students, who were in the party justification condition, were the only respondents to be more likely to ascribe moral responsibility when they also agreed with the punitive aim of making the agent suffer until expiation. This linkage between making the agent suffer and moral responsibility was even more likely if they felt intense negative emotions about the event.

Let us add in this same vein that psychology students in the pleasure justification were the only group of respondents to be more likely to favour the imprisonment of the agent when they attributed moral blame to the agent. This relationship, however, is also more likely to be found when intense negative emotions are felt. Thus, both the linkages between moral responsibility and respectively, favouring prison time and agreeing with retributive punitive attitudes depended to a great extent on feeling negative emotions, for psychology students evaluating the agent who partied all night and created the fatal car-crash.

Another result provides further support for the contention that psychology students are more likely to demonstrate punitive-oriented moral evaluations of responsibility. Psychology students who agreed that the agent was morally blameworthy for his actions were also more likely to impose a harsh concrete sentence, whereas law students did not make such relationships. Negative emotions, as well as favouring the imprisonment of the agent, may render this relationship more likely, but only for psychology students in the work justification condition. Psychology students in the party justification condition may be more likely to associate moral responsibility to imposing a harsh sentence even if they do not feel negative emotions about the event and do not want the agent to be imprisoned.

Let us add that psychology students were more likely to also agree that the agent's action should be publicly denounced when they felt that the agent was morally responsible for his actions, than law students were. This latter student group only made such an association for the work justification condition, but with a lesser strength than psychology students, as the comparison of r values between these two student groups seems to suggest. However, only psychology students were more likely to go one step further in this moral condemnation stance by associating their will to condemn publicly the agent's actions to the need to impose a concrete harsh sentence.

As shown previously in section 3.4, psychology students were, in terms of mean ratings, found to be more likely to consider that the criminal justice system is not harsh enough, compared to law students. Moreover, when they are in the work-related condition, they were also more likely to ascribe moral responsibility to the agent if they generally considered that offenders are not dealt with harsh enough. But, as for previous

linkages between punitive-related measures and moral responsibility, such processes of reasoning depended on whether they felt intense negative emotions.

In the same vein, let us observe that feeling negative emotions made it also more likely for all respondents who were in the work-related condition to agree that offender should suffer until expiation when they also considered that offenders were dealt with too leniently by the criminal justice system. However, psychology students who were in the party justification condition were more likely to favour making offenders suffer when they also agreed that offenders are getting away with their actions, independently of their negative feelings.

Overall, such results point once again towards the conclusion, supported by previous findings (Weiner, 1996), of a necessary linkage between blame, negative feelings and punitive responses in ordinary reasoning. Moreover, in line with Goldberg et al. (1999), feeling that justice is not served and that people are not dealt with harshly enough made it more likely for respondents' to show retributive attitudes towards punishment. This was especially true for psychology students who were evaluating a situation in which an irresponsible behaviour which resulted in fatal consequences was the outcome of hedonistic and "irresponsible" motivations (partying all night). Thus, a threat to social order is more likely to be associated with retributive punitive responses, in line with Rucker et al.'s study, but this influence may even be more probable when the actions that are evaluated are highly blameworthy and considered as socially undesirable.

Globally, patterns of response reflecting moral outrage whereby moral responsibility accompanies punitive and condemnatory responses were clearly more likely to be observed for psychology students than for law students. These results provide support for the contention that retributive attitudes reflect a moral outrage response (Darley et al., 2000) and that ordinary people may act as intuitive prosecutors when they think that norm violations are not dealt with harshly enough by justice (Goldberg et al., 1999; Rucker et al., 2004).

One should, however, note that generally retributive punitive aims were not significant predictors of moral responsibility, when examined in the form of the retribution mean rating. It is only when examining the individual measure of making the

offender suffer until expiation that such linkages are revealed for psychology students in the party justification condition solely. The fact that only one individual measure (and not the whole retributive punitive aim mean rating) was more likely to be favoured when these respondents ascribe moral responsibility to the agent in the party condition could be explained by the nature of the retributive mean rating itself. This mean rating was indeed the product of the computation of items that were not only related to retribution, but also to incapacitation (following the factorial structure produced for these punitive aims). Another source of bias could be related to the format of the measure used to assess punitive aims in this study which was modified with regard to the measures used in study (see section 2.2., p.212). This modification of the format of the scale used for these punitive measures could have polarized respondents ratings and may have biased their evaluations of these attitudes.

4.4.2. Respondents' punitive attitudes

Additional analyses showed that approximately $\frac{1}{3}$ of respondents judged very favourably retributive aims and these respondents were not characterised by one or the other field of study. This group of high retribution-oriented respondents was composed proportionately of psychology and law students. However, further analyses showed that favouring highly retribution and agreeing that the justice system is not harsh enough could be more likely for psychology students, compared to law students. Indeed, more than half of psychology students who were found to strongly agree that the justice system is too lenient were also in the group of respondents who strongly support retributive punitive attitudes. These findings provide again support for the argument that retributive attitudes in ordinary reasoning are often associated to beliefs that norm are not dealt with harshly enough by justice. This suggests again that psychology students, as representants of ordinary reasoning, may be more likely to act as intuitive prosecutors (Goldberg et al., 1999; Rucker et al., 2004), compared to law students.

Finally, another more general comment to make concerning punitive attitudes is that respondents, independently of their type of study, related their punitive responses

(sentence imposed and favouring prison) to retributive punitive aims, but never to utilitarian principles. These results support the suggestion, made by Carlsmith (2006) that people base their sentencing decisions on retributive factors, more than on utilitarian ones, because the latter goals are more relevant to their decision-making.

4.4.3. Moral responsibility and its relationship to the justification measure with regard to controllability ratings

Moral responsibility was also found to be strongly related to the justification condition and the justification measure. Since the justification measure concerned the extent to which respondents agreed that the fact that the agent wanted to go home and sleep as soon as possible justified the agent taking the risks he took, we suspected that controllability, which encompasses measures such as “acting otherwise”, could be also related this measure. Supporting this theory, results show that all respondents, except for law students in the work justification condition, are more likely to disagree that the agent was justified in taking the risks he took when they consider that the actions were under the agent’s control. Moreover, all respondents, except psychology students in the work justification condition, were more likely to disagree with the justification of wanting to go home and sleep when they ascribed moral responsibility to him. This association was even more likely for respondents in the party justification condition, when they also considered that the agent’s actions were controllable. However, this relationship was less likely to be dependent on controllability ratings for law students in the work-related justification condition. Thus, respondents in the party justification condition who considered the agent blameworthy tended to be more likely to disagree with justifications for the risky behaviours of the agent, but this pattern of reasoning depended on the extent to which they thought he could have acted otherwise, was negligent, was careless and did not take the necessary precautions to avoid this event. Law students in the work-related condition did not need to base such an association on the assessment of controllability. These findings suggest that controllability may a more determining factor in respondents’ tendency to react negatively to the event by casting blame on to the agent and rejecting possible justifications for the risks that were taken when they are evaluating an

irresponsible behaviour underlain by hedonistic motives, compared to a same behaviour related to more responsible motivations. This result is not surprising, given that respondents generally were even more likely to show high ratings of the different controllability measures, than to agree with moral responsibility evaluations, in the party justification condition. Controllability, even more than moral responsibility, was a crucial element in respondents' evaluation of the party justification condition, compared to the work-related condition. Respondents', especially law students, may have, in that sense, followed the reasoning that the agent in the work condition had less possibilities to act in another way and to take necessary precautions (rest before driving), than the agent in the party condition, because he had to study the next day or take care of his children the next day.

Overall, these results could be explained by Alicke's (2000) model, whereby normative expectations can lead respondents to spontaneous evaluations that can bias the way in which people will interpret control-related evidence and thus yield higher blame ratings. Since the pleasure-condition, in addition to producing higher controllability and blame ratings, yielded also higher negative emotions and higher sentences, these spontaneous reactions may have influenced controllability ratings, which in turn determined blame ratings and the rejection of justifications for taking risks.

4.4.4. Moral responsibility and its relationship to other correlates

In addition, favouring a counterfactual reasoning for the event was, as predicted, more likely when psychology students ascribed moral responsibility to the agent, but was not more likely when law students made such evaluations. Moreover, these associations between counterfactual reasoning and moral responsibility for psychology students depended highly on their controllability evaluations. The fact that psychology students should be more likely, than law students, to agree that there were alternative behaviours that could have been produced by the agent, when they ascribed moral responsibility, especially if they also considered that the agent could have exercised more control over his actions is noteworthy. This is one more indication that psychology students were more likely to reason in manner which is characteristic of ordinary reasoning using

counterfactuals and controllability to ascribe moral responsibility, compared to law students.

Finally, contrary to our expectations and findings in studies 1 and 2, the tendency for internality was not a significant predictor of moral responsibility ratings. As the internality mean ratings used in this study had low alpha index values (see note 122, p. 223), these non-significant results could be due to the lack of reliability of these mean ratings.

4.5. Moral and legal responsibility dimensions: shared correlates but different reasoning processes

As for the legal responsibility dimension, in conformity with predictions, no link with negative emotions, the justification for taking risks measure, punitive responses and retributive attitudes was found.

However, contrary to our predictions, the legal responsibility dimension was strongly predicted by the counterfactual reasoning measure, which was also related to the moral responsibility and controllability ratings. Further findings suggest that the linkage between legal responsibility and the counterfactual reasoning measure may depend on whether respondents ascribe moral responsibility, especially if they are psychology students. Law students were more likely to make such an association only in the work condition and independently of whether they blamed the agent or not. They may have considered that the agent in the work condition, being tired because of responsible motives (work), was more likely to reason (consciousness and voluntariness, counterfactual thinking) about his drowsiness, than an agent who had partied all night long and who may have been less able to make a cost and benefits assessment of his fatigue. Psychology students were more likely to consider that the agent who was conscious of the risks he took and who acted voluntarily could have acted otherwise and avoided such an event, when they also blamed the agent. These findings demonstrate once again that ordinary reasoning about responsibility, whether legal or moral, is strongly related to the psychological tendency to imagine alternatives to a behaviour and to reason in a “what if” perspective.

Further analyses show that moral and legal responsibility dimensions are associated to the negligent and intentional homicide qualifications. Moreover, law students were found to be more likely to agree with such qualifications than psychology students (see section 3.4.). Since the events that were evaluated were more likely to amount to a negligent homicide qualification, we decided to only examine the relationship between the two dimensions of responsibility and this qualification. We suspected that law students would be more likely to relate this qualification to legal responsibility than to moral responsibility, in coherence with legal reasoning. Psychology students may be more likely to relate this qualification to moral responsibility without considering the legal realities involved in the situation.

4.5.1. Moral and legal responsibility and their relationship to legal qualifications

As legal and moral responsibility dimensions were both found to be related to the negligent homicide qualification, we examined these linkages separately across all groups of respondents. Akin to previous findings in studies 1 and 2, noteworthy results indicating that law students are more likely to reason in a more rational-oriented way that is consistent with legal reasoning, whereas psychology students are more likely to reason in a more moral and evaluative fashion.

Psychology students were the only respondents to be more likely to qualify the event of negligent homicide when they felt that the agent was to be blamed for his actions. They also indiscriminately related this qualification to higher legal responsibility. Law students never associated moral responsibility to negligent homicide, but were more likely to make such a qualification if they considered the agent was not legally responsible in the party justification condition. Let us also add that the positive association between legal responsibility and the negligent homicide qualification found for psychology students depended on whether they agreed that the agent's actions were controllable. To the contrary, the negative linkage between these two evaluations found for law students in the party justification condition was even more likely if they did not consider that agent's actions were controllable.

Let us also add that all respondents in the party condition were more likely to qualify the event as accidental when they ascribed low moral responsibility. However, this association was more likely for psychology students, if they also felt negative emotions. Thus, psychology students evaluating an irresponsible behaviour related to hedonistic motives were more inclined to associate low moral blame to the accident qualification, especially when this was accompanied by negative feelings, whereas law students made this association independently of these feelings.

4.6. Controllability and its relationship to the moral and legal dimensions of responsibility

In line with findings in study 2 and with our assumptions, moral responsibility was more likely to be attributed to the agent if his actions were considered to have been under his control. Moreover, respondents were also more likely to ascribe legal responsibility to an agent they considered could have exercised more control over his actions, but this association was highly dependent on whether moral responsibility was attributed to the agent as well. Let us also add that when examining whether legal responsibility had any influence of the tendency for respondents to associate higher moral responsibility to higher controllability, no evidence for such an impact was found. It is, finally, noteworthy to mention that these influences were found for all respondents: they did not vary depending on the type of study and the justification condition.

These findings indicate once again that moral responsibility is strongly related to controllability and that this association could be stronger and more consistent than the linkage between legal responsibility and controllability. Moreover, legal responsibility is more likely to be associated to controllability ratings if moral responsibility is also strongly evaluated. People may find an agent more blameworthy when they think that he could have done otherwise and did not take all the precautions to avoid the event, but this do depend on whether they feel he was conscious of the risks he was taking or their assessment as to whether he acted voluntarily. However, if they think a person could have done otherwise and did not take all precautions necessary to avoid such harmful

consequences, they will also be more likely to consider that he was conscious of the risks and acted voluntarily, especially if they also blame the individual for his actions.

4.6.1. Controllability as a stronger factor of influence for moral responsibility than for legal responsibility?

Overall, controllability was found, as in study 2, to be more related to the moral responsibility dimension than to legal responsibility. Several findings point indeed towards the hypothesis that controllability may be less of a determining factor for legal responsibility ascriptions, than for moral responsibility evaluations. Moreover, other findings provide further evidence that controllability and moral responsibility are strongly related dimensions and that the association between moral responsibility and correlates, such as rejecting justifications for taking risks or counterfactual thinking, depends highly on controllability, especially in ordinary reasoning (more likely for psychology students than for law students). These different relationships provide great support for the interpretation, confirming previous assumptions (Weiner, 1995), that controllability is an essential factor to consider when ascribing moral responsibility.

These findings are also in line with Shaver's (1985) analysis of a strong link between excuses, controllability and moral blame. In his reasoning, a voluntary action (driving when feeling drowsy because one wants to go home) leading to an unintended or unforeseen consequence (losing control of the car, colliding into another car and killing its driver) is perceived by respondents as a morally reprehensible conduct for which responsibility cannot be denied. In other words, judging that a person is morally responsible for the harmful outcome of his actions makes the perceiver more likely to reject the agent's perceptions that the agent just wanted to go home and did not mean to create this accident (justification) and to favour the reasoning that he should have acted otherwise instead of taking such risks (counterfactual reasoning). But these relationships are more likely if the agent was considered to have been able to exercise control over his actions (controllability).

The findings of a strong linkage between moral responsibility, counterfactual thinking and controllability also make sense: the agent was more blameful for wanting to go home

and sleep and taking the risk of driving while feeling drowsy, when he could have taken a nap before driving instead. Counterfactual thinking, as suggested by (Wiener et al., 1994), plays a central role in the evaluation of controllability ratings.

Finally, these results provide evidence that counterfactual reasoning could be based more on moral judgments than on rational evaluations in ordinary reasoning. This is all the more possible, given the finding that legal responsibility was also more likely to be associated to counterfactual reasoning by all psychology students, if they also considered the agent to be blameworthy. This influence of moral evaluations was not found for law students in the work-related condition. Thus, ordinary reasoning may be more likely to associate counterfactual reasoning to a legal evaluation of responsibility through the influence of moral evaluations. Since moral responsibility is strongly predicted by negative emotions, this could also mean, as suggested in some studies (Gleicher et al., 1990; Macrae & Milne, 1992), that counterfactual thinking is more the product of an emotional interpretation of events, than of a rational appraisal process. Overall, these results demonstrate once more that the notion of choice (should have done otherwise) is essential in ordinary people's punitive evaluations of immoral actions (Alicke & Davis, 1990; Macrae, Milne & Griffiths, 1993).

4.6.2. A stronger influence of the manipulation of the justification for irresponsible conduct on controllability ratings than on moral responsibility ratings

The fact that, at the level of mean ratings, moral responsibility and controllability were strongly affected by the justification condition also warrants an explanation. This means that the manipulation of the reasons for which the agent is tired and takes the risk to drive while feeling drowsy affect more respondents' perceptions of the extent of control of the agent over his actions than their evaluations of his blameworthiness. The fact that moral responsibility and controllability were both strongly influenced by the manipulation of normative factors can be explained by Jones & McGillis's (1976) notion of category-based expectancies. People may be more likely to believe that a person could have done otherwise and judge him more blameworthy, if the actions that were

performed are evaluated against the behavioural alternatives that are considered by the participants to be available when the agent took the decision to act. This tendency is expected to be particularly strong if the perceiver expects the agent to act in conformity with his category-based expectations, that is, his conception of the likely behaviour of the agent given his characteristics (here a person who parties all night vs. a person who works all night). Thus, a person who parties all night and who engages in an irresponsible conduct (driving when feeling drowsy) may correspond more to a normative expectancy that categorizes him as an irresponsible and immature person, than a person who works all night and behaves in the exact same manner.

4.6.3. The influence of controllability on the relationship between moral and legal responsibility

Let us conclude by mentioning that all respondents were more likely to ascribe legal responsibility when they considered that the agent was morally responsible for his actions. However, for law students, this association depended on the extent to which they considered that the agent could have acted otherwise and did not take all the necessary precautions to avoid this event (controllability), whereas, for psychology students, this relationship did not depend on their controllability ratings. Controllability was, thus, a determining factor for moral responsibility ascriptions to be associated to legal responsibility judgments in law students' responses, but not in psychology students' responses. Law students, in line with legal thinking, may depend more on elements such as necessary precautions and acting otherwise to consider that a morally blameworthy act can also be assessed in terms of legal responsibility, compared to psychology students. This is again another example of the opposition between psychology students' moral and evaluation-oriented reasoning and law students' more rational and legal-oriented reasoning.

4.7. Participants' perceptions of the criminal justice system: the role of religious affiliation and political orientation

To conclude, let us mention a few noteworthy results concerning the effect of participants' religious beliefs and political orientation on the manner in which they perceive the criminal justice system.

Respondents who considered themselves as belonging to the political right expressed more satisfaction with the criminal justice system and its procedural fairness, than respondents from other political affiliations did. This result can reflect the higher tendency for rightist respondents to favour the status quo, compared to more left-oriented individuals (Giddens, 1998). Leftists may be more likely to show dissatisfaction with the criminal justice system's procedural fairness, because they tend more to claim more equality. These results could also be explained by Altmeyer's (1981) authoritarianism theory (RWA), since authoritarianism is related to conservatism (Wilson & Patterson, 1968). This theory contends that, among other characteristics, authoritarianism reflects "a high degree of submission to the authorities who are perceived as established and legitimate". RWA has also been found to be strongly associated to justice attitudes pertaining to punishment and jury sentencing decisions (Altmeyer, 1996; Barnett et al., 2004; Carroll et al., 1987; Narby, Cutler & Moran, 1993).

Finally, the fact that respondents who have a religious affiliation, without practicing actively this belief, are also more satisfied with the criminal justice system and show more trust in its decision-making, than non-believers, could also be explained by the authoritarianism theory, since such orientations could be related to religious beliefs (Leak & Randall, 1995)

V. Discussion

1. Law and psychology students: legal reasoning vs. commonsense representations of responsibility

1.1. Effect of type of study on perceptions of rational criteria for legal responsibility

Findings in studies 1 and 2 suggest the existence of common representations of the different dimensions of rational criteria of legal responsibility for all participants. All respondents correctly distinguished between consciousness and voluntariness and seemed overall to distinguish between commonsense intentionality levels, such as pure desire to hurt vs. intent to hurt vs. awareness of the probability of someone being hurt. They also clearly distinguished clear consciousness and intentionality from ambiguous consciousness and intentionality. In other words, all respondents understood that the measures depicting a situation in which consciousness and intentionality is not clear and would not be determined as existent in legal reasoning were less characteristic of respectively, consciousness and intentionality.

But even though generally all respondents differentiated between voluntariness and consciousness and discriminated between different levels of intentionality, these observations must be nuanced in light of the differences between respondents related to their type of study highlighted in both studies 1 and 2, in the first part of the questionnaire.

In study 1, law students, in the first part of the questionnaire, when confronted to a situation which describes an event which is accidental, but which can reflect legal negligence, given the presence of certain cues related to dispositional and motivational factors (the agent is described as throwing a flowerpot out of the window in a moment of rage) in the description, were more likely to identify the different rational criteria for responsibility, compared to psychology students. They were indeed more likely to

assimilate different levels and dimensions of consciousness and intentionality as reflecting respectively total or partial awareness and intent, compared to psychology students. Moreover, they were also more likely to grade different levels of intentionality in accordance with corresponding legal levels of intent, compared to psychology students. As far as intentionality is concerned, they understood that when a person has the unique objective to hurt someone, his actions are more intentional than when he wants to hurt someone, when he knows that the chances are great that he might hurt someone or when he knows that his actions could hurt someone. Moreover, they rated the intentionality as equivalent between “wanting to hurt someone” and “knowing that the chances are great that one might hurt someone”, as well as between two levels of awareness of the probability of someone getting hurt (“knowing that one’s actions could hurt someone” and “odds are great that one might hurt someone”). As for psychology students, they demonstrated more rough distinctions between levels of intentionality, since they only correctly perceived that “desire to harm” carried more intent than “intending to harm” and that “knowing that the odds were great” was more related to intentionality than “knowing that harm could occur”.

In study 2, results indicated once again that law students are more likely than psychology students to have an accurate representation of the different gradations of intentionality, which is consistent with legal understandings of intentionality. Levels of intentionality rated by law students for each measure increased as a function of the level of culpability entailed in the evaluation. Moreover, they also recognized that knowing that one’s actions could hurt someone reflected less awareness of the probability of risks, and thus, less intentionality, than knowing that the odds are great that one might hurt someone. As for psychology students, even though they did not grade the different measures of intentionality in scrupulous correspondence with legal nuances of intentionality as law students did, they perceived rather accurately different nuances to intentional conduct. Their ratings decreased from pure desire to harm to intent to harm and from pure desire to awareness of the probability of the risk to harm. Moreover, they also agreed that awareness that the odds were great for a harm to occur was closer to intent than awareness that harm could occur. These findings show that ordinary reasoning

has a graded conception of the awareness of the probability of risk element and perceives that according to this risk element, intentionality increases gradually from negligent (no intent), to reckless (some intent) and finally, to intentional (total intent) (Karlovac & Darley, 1988). Moreover, as ordinary perceivers distinguished, with decreasing intentionality ratings, between the desire to hurt, wanting to hurt and knowing that there is a probability of risks that one could hurt someone, this constitutes further evidence for the observation, highlighted by Nadelhofer (2006), that people may consider desire and belief elements, as well as foresight, when evaluating the extent of intentionality. Thus, not only may people be able to differentiate, in terms of decreasing responsibility ratings, between situations in which the agent's actions are described as purposeful or deliberate, negligent or accidental, as demonstrated in Finkel & Groscup's study (1997), but they may also perceive the rough nuances that exist in the attribution of rational criteria of intentionality. Thus, people may have a fairly graded conception of intentionality, whereby such an evaluation is likely to increase with foreseeability, intent, purpose and motives.

One should point out that law students' perceptions of the different gradations in intentionality were even more accurate in study 2 than in study 1. This noteworthy observation can be explained by the nature of the scenario used to contextualize these evaluations. The vignette used in study 2 to measure participants' perception of these rational criteria was more neutral in its wording than the one used in study 1. The scenario used in study 1 could have biased respondents' evaluations of these different measures of legal criteria. Indeed, it described a person acting in a manner that could have been perceived by respondents as intentional, because the harmful actions were depicted as being the result of a moment of rage. The scenario used in study 2 was thus modified, in order to remove any biases that could have existed in the first scenario. These findings thus replicated results found in study 1 and provided for even stronger evidence as to the conclusion that law students' are more likely, than psychology students, to clearly understand and identify the different nuances of intentionality that can be considered in legal thought.

Let us add here another important finding in line with what has been said until now, which concerns differences between law and psychology students for specific measures of the intentionality, consciousness and voluntariness. These specific measures, which were only used in study 2, followed the more general measures related to the different dimensions of consciousness, voluntariness and intentionality. They were formulated in such a way that they concerned the respondent's evaluation of the actual degree of consciousness, voluntariness and intentionality he/she would agree to attribute to an act of apparent negligence (throwing a dart accidentally out of a window). Law students were more likely to attribute consciousness, voluntariness and intentionality to the dart thrower for her seemingly negligent act, compared to psychology students. We suggest that law students may have been more sensitive to the potential legal liability that could be identified for an event in which an individual's negligent actions led to harmful and unintended consequences. It is to be expected that future lawyers may have been more receptive, compared to psychology students, to the interpretation of events in terms of such rational criteria, when confronted to a seemingly neutral (information concerning the disposition and thoughts of the agent are absent) event. As Hamilton (1980) suggested, as good intuitive lawyers, they sensed that the agent could have done otherwise and should have known and anticipated such an accident.

1.2. Effect of type of study on moral and legal responsibility dimensions in relation to the manipulation of legal cues vs. normative cues

As for the respondents' evaluations of responsibility for the car-crash scenarios that were manipulated in the three studies, results indicate that respondents gave more or less weight to legal criteria, when ascribing responsibility to the agent, depending on their exposure to legal thought and on the nature of the cues that were salient in the scenario. Law students were more likely to evaluate the responsibility of the agent through a rational and legal-oriented analysis of the situation using these rational criteria, especially when legal cues were manipulated. Psychology students, on the other hand, were more likely to evaluate the agent's behaviours through a moral and "right or wrong"

perspective, especially when their normative expectations as to responsible conduct were strongly violated.

1.2.1. Study 1: Rational vs. morally based negligence ratings

In study 1, several findings point towards the conclusion that law and psychology students did not give the same weight to rational criteria used to ascribe legal responsibility for negligence in their responses. Law students tended to evaluate negligence through a more rational and analytical lens, whereas psychology students were more likely to use a moral and evaluative perspective. The following results support such an interpretation.

Law students rated higher negligence for the unconscious negligence condition, compared to the conscious negligence condition, whereas psychology students considered the agent's act to be negligent, whatever the level of legal negligence that was made salient in the scenario they were evaluating. Moreover, at the correlational level, law students in the unconscious negligence condition were the only group of respondents who were more likely to consider that the agent acted out of negligence, 1) when they considered that he had freely taken the decision to drive knowing that this could lead to an accident (voluntariness) or; 2) when they agreed that different levels of awareness of probability of risks reflected intentionality (Risk mean rating in the first part of the questionnaire). Let us also mention that regression analyses suggest that law students in the unconscious negligence condition were also more likely to make such a rating if 1) they did not ascribe moral responsibility to the agent; 2) thought that necessary precautions had not been taken and 3) qualified the event of negligent homicide. Psychology students were more likely to consider that the agent had acted out of negligence 1) when they thought that he had not taken all necessary precautions or; 2) when they perceived the agent as careless or; 3) when they consider the event to be a negligent homicide. However, psychology students were more likely to associate negligence to negligent homicide if they blamed the agent for his harmful action too.

Agreeing that necessary precautions were not taken was also more strongly related to considering that the agent acted out of negligence for psychology students, compared to

law students. This finding is not surprising, since ordinary reasoning about negligence strongly depends on the determination of whether necessary precautions were taken (Karlovac & Darley, 1988). Given the influence of elements such as voluntariness or probability of risks in law students' reasoning about negligence, necessary precautions may be less strongly related to negligence for these respondents, because more rational factors are also taken into account in their negligence ratings.

Finally, it is worth mentioning that law students were also more likely to consider that the fact that the agent's actions were not intentional diminished his responsibility, compared to psychology students. This is a further indication that law students perceived the car-crash situation as an act of negligence, which they related more to the evaluation that the agent did not act intentionally, than to a moral evaluation of the extent of his negligence.

Taken as a whole, these results hint towards the hypothesis that psychology students were more likely to evaluate the scenario in a moral perspective, whereas law students were more likely to cling on to a legal analysis of responsibility.

1.2.2. Study 2: Law students' perceptions of the legal subtleties discriminating recklessness from negligence

As for study 2, the heightened sensitivity of law students to legal cues, compared to psychology students, as well as the more morally-oriented evaluations of psychology students, compared to law students, became even more evident.

Law students correctly perceived the differences between the recklessness and the negligence situation, in terms of the rational criteria that corresponded to each level of culpability, as well as, in terms of the possible serious legal implications for the offender (intentional homicide qualification more likely for the reckless conduct). Psychology students were less likely to perceive the seriousness of the offender's liability in the recklessness condition, compared to the negligence condition. Indeed, they were more likely to consider that the agent acted out of negligence, whatever the culpability level, and to view both culpability conditions as an accidental event, compared to law students. We suggest here that psychology students may not have been very sensitive to the legal

cue in the recklessness condition that indicated intentionality (knowing that the probability that one's actions can lead to harmful outcomes and deciding to disregard this possibility because one's wants to reach a goal at all costs), because these elements do not correspond to what ordinary reasoning considers to be intention (Malle & Nelson, 2003). This interpretation is all the more possible, since blame and anger were not at all affected by the recklessness condition. Yet intentional behaviours are likely to produce more blameful and angry evaluations from ordinary perceivers, compared to negligent behaviours (Knobe, 2003). This suggests that psychology students did not detect this legal intentionality cue in the recklessness condition. Law students associated this legal cue to legal intentionality, because its wording mirrored legal definitions of recklessness as they were taught to them in their legal training. Finally, findings concerning psychology students suggest, in line with findings in study 1, that they were more likely to evaluate the situation in moral and descriptive terms (accident, negligence) and less receptive to the legal implications that accompanied the levels of culpability that were manipulated, compared to law students. This is all the more possible since they were also more likely to support the public denunciation of the agent's acts than law students were.

1.2.3. Study 3: Influence of normative cues on law and psychology students' moral responsibility evaluations

The last study demonstrated that, when normative cues are salient and legal cues were not present in the scenario that participants had to rate, law and psychology students rated scenarios in the same manner and their responses were affected by normative cues in the same manner. This indicates that law and psychology students were just as susceptible to attribute higher moral responsibility, controllability, punishments, as well as lower mitigating circumstances and diminished responsibility to the agent in the pleasure condition, compared to the duty condition. In other words, even respondents with legal training considered that the agent who partied all night was more blameworthy, could have controlled his behaviour more and deserved a harsher sanction, compared to the agent who worked all night. Thus, an extra-legal factor, such as justification for irresponsible conduct, affected also respondents who, by their training, should not be

affected by such factors when they evaluate a behaviour and judge the sanctions incurred for it.

However, let us note that some results in study 3 also indicate that law students are more sensitive to the possibility that harmful behaviours can correspond to a legal liability, compared to psychology students. They were indeed more likely to assess that the agent's acts could be intentional, that he may be accountable before justice and that his acts amount to a qualification of negligent or even intentional homicide. Law students' higher ratings concerning the negligent homicide qualification and accountability before justice are quite comprehensible, given that fatigue is considered in case law as an element that can lead to incapacity to drive and, thus, produce legal consequences. As for the elements of intent, even though the situation did not contain any cues that could lead to an assessment of intentionality, law students may have taken into consideration the possibility that the agent's fatigue was not only related to his night activities, but also to the consumption of alcohol or drugs. The presence of alcohol or drug use, when determining responsibility for a fatal car-crash, can indeed lead to judgments for reckless homicide (and thus the consideration of intentional behaviour). Law students may have considered this issue when making their evaluations.

Finally, one should also mention that important differences, concerning the perception of the legal system and its procedures, as well as causes for crime and factors that can influence legal decision-making, were found in study 3 between law and psychology respondents. Law students, not surprisingly, showed generally more support and satisfaction for the way in which the legal system functions and handles people, compared to psychology students. Psychology students were, conversely, more critical and distrustful of the legal institution and its practices. Law students' responses concerning punitive aims (treatment, restorative and financial ways to attenuate the harm done to the victim's family) and the legal system's responses to harmful conduct (the individual's characteristics and personal situation should influence decision-making) corresponded more to actual legal practices, than psychology students' responses (importance of restoration and retribution, facts should influence decision-making). For that matter, let us observe that it is not surprising that law students are more likely to

support the normative values and processes, which guide the institution of law and its legal rationality, compared to psychology students. A similar finding was recently observed by Carvajal Sanchez (2010) for respondents coming from the same academic fields in Switzerland.

1.3. Effect of type of study on the correlates of moral and legal responsibility

One of the main assumptions guiding this study is the fact that moral and legal elements of responsibility, although they overlap, do not involve the same patterns of reasoning, because they are determined by different factors. In conformity with our expectations, moral responsibility was found to be more likely to be related to negative emotions, condemnatory responses such as favouring public denunciation, supporting retributive punitive attitudes and punitive responses and rejecting justifications, compared to legal responsibility. Conversely, legal responsibility was not found to be related to such punitive, emotional and evaluative factors and was more likely to be associated to rational criteria and legal qualifications.

An additional and related assumption concerned the possibility that the tendency to favour a more moral or a more legal pattern of reasoning about responsibility may be related to the legal training of respondents. Psychology students, given their tendency to moral and evaluative judgments, would be more likely to associate moral responsibility to related factors such as negative emotions, condemnatory responses and punitive responses, compared to law students. Law students, compared to psychology students, would be more likely to associate rational evaluations or legal qualifications to the legal responsibility in coherence with the legal realities of the situation they were assessing. Findings from the three studies that were carried out support this assumption.

1.3.1. Psychology students' emotional and "moral-outrage response" reasoning about responsibility

Concerning study 1, several findings about the correlational links between blameworthiness and factors such as negative emotions, punitive responses and retributive punitive attitudes indicate that psychology and law students do not reason about these linkages in the same way.

For a car-crash event which constitutes an act of negligence and which could be considered as liable for penal consequences, only law students in the condition in which the agent was described as not being aware of the risks attached to his conduct were more likely to blame the agent when they also support retributive principles for sentencing. Moreover, psychology students in the unconscious negligence condition and law students in all conditions were likely to ascribe blameworthiness to the agent when they felt negative emotions; but only the psychology students made this association independently of their support for retributive aims. Moreover, psychology students were more likely to associate blameworthiness to punitive and condemnatory responses such as public denunciation or imprisoning the agent across both negligence conditions, whereas law students only made these associations for the unconscious negligence condition. Finally, as for the linkage between blameworthiness and punitive responses (prison, retributive aims), findings suggest that psychology students could depend more on condemnatory and emotional responses to show such morally punitive responses than law students do. They may, in that sense, be more prone to express a moral outrage stance when favouring punitive responses, compared to law students. Law students, because they are only more likely to associate blameworthiness to prison or public denunciation for the unconscious negligence condition, may be more likely to reason in a more rational fashion. For them, a more negligent act (they considered the unconscious negligence condition to entail more negligence than the conscious negligence one) is likely to be more blameworthy and to be more likely punished by a public condemnation and imprisonment.

These findings provided us with the first hints that psychology students were more likely to favour a moral outrage pattern of response than law students. Their responses are a good illustration of ordinary reasoning about blame and sanctions: ordinary perceivers tend to cast more blame on an agent if they feel he deserved to be sanctioned

and publicly condemned for having violated the moral order (Feather, 1996; Feinberg, 1970).

As for study 2, in which culpability levels were more markedly distinguished as they opposed negligence to recklessness (which entails a form of intent), evidence for the higher tendency for psychology students, compared to law students, to associate moral responsibility to emotional and condemnatory punitive responses became even more apparent. Psychology students in the negligence condition were the only respondent group to associate moral responsibility to negative emotions. Moreover, all psychology students favoured public denunciation when they found the agent morally responsible without this association depending on whether they favour his incarceration, whereas law students only made this association for the reckless conduct and were more likely to relate it to the imprisonment of the agent. Finally, both groups of students were more likely to want the offender to be imprisoned if they felt his actions should be publicly condemned, but this association was highly dependent on attributions of moral responsibility towards the rule violator only for psychology students.

These findings provide further evidence for the contention that the punitive moral outrage process of reasoning was more characteristic of psychology students' evaluations, compared to law students' responses. Given that ordinary perceptions of punitive sanctions have often been related to blame in previous analyses (Carlsmith & Darley, 2008; Feather, 1996; Feinberg, 1970), psychology students' moral outrage response pattern may be more representative of ordinary reasoning about responsibility than law students' evaluations.

Finally, the third study in which normative cues concerning justifications for irresponsible conduct revealed even more striking evidence that moral outrage response patterns were more likely to be part of ordinary reasoning, as illustrated by psychology students' evaluations, compared to law students. Psychology students were more likely to feel intense negative emotions while thinking about the event if they also considered the agent to be morally responsible, whereas law students did not associate moral evaluations to such negative feelings. Moreover, psychology students in the party justification

condition were the only respondents to ascribe more moral responsibility to the agent if they also felt they wanted him to be imprisoned or if they generally felt that offenders should suffer until expiation. Let us add that these associations between moral responsibility and punitive responses and attitudes were especially likely if psychology students in the party justification condition also felt high negative emotions about the event. One should also mention that psychology students were also more likely to ascribe more moral responsibility if they felt that offenders were getting away easily with their criminal actions and constituted a threat to social order, but only in the work-related justification condition. Finally, psychology students were more likely to impose a harsh concrete sentence when they felt that the agent was morally responsible, whereas law students did not relate these two evaluations. In addition, psychology students who were in the work related justification were more likely to associate moral responsibility to harsher sentences, especially if they felt negative emotions or favoured prison. But for psychology students in the party-justification condition, this association did not depend on negative feelings or agreeing with punitive responses. It is also worth mentioning, in the same vein, that psychology students, whatever the condition, were also more likely to favour a harsh concrete sentence, when they also felt that the agent's actions should be publicly denounced.

Thus, globally, psychology students were more likely to display moral and emotional outrage response patterns than law students. Furthermore, such moral outrage stance was especially marked when they were evaluating a situation in which an irresponsible behaviour which resulted in fatal consequences was the outcome of hedonistic and "irresponsible" motivations (partying all night). These findings reinforce the conclusion that retributive attitudes reflect a moral outrage response (Darley et al., 2000) and that ordinary people (perceivers who are not legally trained; here, psychology students) may act as intuitive prosecutors when they think that norm violations are not dealt with harshly enough by justice (Goldberg et al., 1999; Rucker et al., 2004)

1.3.2. Law students' rational-oriented analytical evaluation of responsibility

Across the three studies, many findings provide support for the contention that law students were more likely, than psychology students, to evaluate the car-crash event in a more rational and analytical perspective which took into account the legal realities involved in the situation. We will discuss the most compelling findings supporting such an interpretation.

In study 1, law students were never more likely to qualify the event of negligent homicide when they attributed legal responsibility to the agent, whereas psychology students did associate both for the conscious negligence condition. Moreover, even if all respondents understood that the event was more likely to be accidental if the agent's legal responsibility was low, law students were more likely, than psychology students, to detect the presence of relevant elements with regard to the situation, such as necessary precautions or awareness of the probability of risks, and associate these to legal responsibility. Thus, law students in the unconscious negligence condition (no awareness of the probability of risks and, consequently, no precautions taken to avoid such risks) were the only group of respondents to be more likely to ascribe legal responsibility if 1) they thought that necessary precautions had not been taken to avoid the harmful outcome or; 2) they agreed that different levels of awareness of the probability of risks corresponded to different levels of intentionality. Their patterns of responses for the unconscious negligence condition were, hence, consistent with the legal cues that were contained in the situation they evaluated.

Regression analyses testing whether necessary precautions, awareness of the probability of risks and legal responsibility are predictors of the accident qualification show even more convincing evidence of law students' rational-oriented and legally-consistent response patterns. They indicate that low legal responsibility was the sole predictor of such a qualification for both psychology students in the conscious negligence condition and law students in the unconscious negligence condition. Yet, law students in the unconscious negligence condition reasoned differently: low responsibility and low agreement with the fact that necessary precautions were not taken were more likely to be

associated to characterizing the event as accidental. Thus, law students clearly distinguished between the two negligence conditions: they perceived that both these conditions could be considered as accidental, but that different elements that are relevant to legal reasoning were to be considered for each condition to come to such a conclusion. Low legal responsibility (low awareness of the risks attached to ones' actions, low voluntariness) was a relevant element for the unconscious negligence condition, whereas the consideration of low legal responsibility, in addition to the fact of having taken necessary precautions to avoid harmful outcome, was more pertinent to evaluate the conscious negligence condition. Psychology students used another reasoning process and only applied it to the conscious negligence condition: they detected that in the conscious negligence condition the agent was described as being aware of risks and taking precautions to avoid them, consequently, the less he was aware of the risks, the less he acted voluntarily and intentionally, the more this event was accidental.

These results suggest that law students may be evaluating the car-crash event in a more analytical manner considering all cues relevant to decide whether the agent was legally accountable or not, compared to psychology students.

Law students' more legally-oriented reasoning was also quite manifest in study 2. Law students never made any significant associations between moral responsibility and legal qualifications that implied the possibility for a legal outcome and a penal response, unlike psychology students who did make these linkages. Moreover, law students were more likely to agree to qualify the event of intentional homicide, when they ascribed legal responsibility to the agent in both negligence and recklessness conditions, whereas psychology students only made such an association for the negligence condition. A related observation to make is that law students agree that more legal responsibility (higher consciousness, higher intentionality) makes it more likely that the event is an intentional homicide for both conditions, but these associations are based on different reasoning processes depending on the condition. In the negligence condition, law students are more likely to relate high legal responsibility to the qualification of intentional homicide if 1) they considered the agent's acts controllable or; 2) if they believed that a negligent conduct, such as throwing a dart involuntarily through the

window and harming a passer-by in the process, could amount to intentional behaviour. In the recklessness condition, law students make this association independently of other rational factors, because they follow the reasoning that recklessness implies a certain level of intent, which logically could likely lead to an intentional homicide qualification. They do not need to consider any other factor to be more likely to perceive this event as intentional homicide, if they think that the agent acted intentionally, since they detected the element of intent in this culpability condition. Psychology students are less likely to demonstrate such a legally-based pattern of reasoning, since they are more likely to associate legal responsibility to intentional homicide only in the negligence condition 1) if they consider that the agent is morally responsible or; 2) if they agree that he should be imprisoned for his actions.

Finally, even in study 3, in which legal cues were not made salient, several findings indicate that law students were still more likely to evaluate the situation using a legally-focused lens, compared to psychology students. These results add more evidence, at a correlational level this time, to the conclusions made previously, in section 1.2.3, (which concerned mean ratings) of law students' tendency to a legal and rational standpoint in their evaluations.

Psychology students indiscriminately related moral responsibility to negligent homicide, as well legal responsibility to this same legal qualification. Law students, on the other hand, did not associate moral responsibility to negligent homicide and tended to ascribe less legal responsibility, when they agreed to qualify the situation of negligent homicide in the party justification condition. Let us add that the linkage between legal responsibility and negligent homicide depended highly on whether psychology students considered the agent's acts to be controllable. Controllability had an opposite effect when this linkage was made for law students, since the evaluation of controllability made it less likely for law students to ascribe low responsibility if they qualified the action of negligent homicide. In other words, the negligent homicide qualification for psychology students was more likely, if they ascribed legal responsibility and, more so, if they agreed that the agent's actions were controllable. This qualification was, conversely, less likely if law students in the party-justification ascribed legal responsibility to the agent,

especially if they also considered that his actions were controllable. These results suggest that negligent homicide, in law students' perspective, was more likely to be considered as a qualification that is related to low legal responsibility and to the agent's incapacity to act in another way to prevent the harmful outcome from occurring. Conversely, psychology students had a different reasoning: they perceived the negligent homicide qualification to be more likely if a person was legally responsible for actions that he/she could have prevented.

1.3.3. The role of the influence of the academic training

In sum, law students, due to their training, were more likely to detect rational criteria for responsibility and to evaluate the situation in a rational and legal frame. Their patterns of responses indicated generally a heightened consideration for the legal realities involved in the situation, compared to psychology students. On the other hand, psychology students were more likely to be more attuned to evaluative and morally-tainted ascriptions, such as public denunciation, acting out of negligence or the qualification of accident and less sensitive to the legal implications of the agent's behaviours, compared to law students. Psychology students were also more likely to adopt a moral outrage and punitive-oriented pattern of response, compared to law students. However, when cues pertaining to rational criteria were not explicitly salient in the scenario evaluated and normative factors were manipulated instead, like in study 3, the manipulation of social norms had the same impact on respondents' moral responsibility ascriptions, at the level of mean ratings, no matter what their training. Law students were just as likely as psychology students to ascribe more moral responsibility to the agent when his irresponsible behaviour was justified by hedonistic reasons (partying all night) than when his actions were justified by duty-related reasons (working all night). Thus, when law students could not "hang on" to rational criteria to base their responsibility judgments (like in studies 1 and 2), they were also more prone to normative and moral evaluations. However, law students, even in study 3, were more likely to reason about legal responsibility and their relationship to relevant legal qualification in a manner which is more consistent with the legal realities of the car-crash event than

psychology students were. Moreover, also in study 3, respondents with a law and psychology academic training, when evaluating the criminal justice system and its procedures, as well different causes for crime and factors that can influence legal decision-making, positioned themselves according to the specific ideologies guiding their respective fields of study. Law students, in accordance with the principles guiding the institution of criminal law in Switzerland, were more likely, than psychology students, to favour treatment as a goal for penal sanctions (rehabilitation-oriented aims), as well as consider that apologies and financial measures could help attenuate the harm done to the victim's family. They were also more likely, in line with the reality of judicial practices, to consider that factors related to the individual's personal characteristics and behaviour should guide judges' decisions, than psychology students. Psychology students, were, on the other hand, more likely to favour retribution and incapacitation as a goal for penal sanctions and favoured social-norms-related causes, such as loss of civic sense and moral values, to explain crime, compared to law students. They were also more likely than law students to support the idea that facts should affect judges' decision-making. Psychology students were probably more favourable to explaining crime by the breakdown of social norms and more likely to consider that the facts surrounding the case should influence judicial decision-making, because their studies condition them, more than law studies do, to take into account external and social factors and their possible influence on a person's behaviour.

These observations mirror Carvajal Sanchez's (2010) recent findings concerning the ideological influence of the academic background on law and psychology student's representations of restorative justice and punitive justice. On the whole, when confronted with evaluations, which are directly related to domains of knowledge specific to the legal field (salient legal cues in the scenario or assessment of the criminal justice system and its processes, favouring restorative justice aims), law students will respond in line with their training. Let us not forget, in this explanation, that we made sure that all law students who participated in this study had already gone through classes concerning specifically the different forms of legal culpability (negligence, intent) and the difference between legal responsibility and irresponsibility. In essence, in line with Clémence & Doise's (1995) interpretation, law students, given their training, were more likely to use a

rational logic of reasoning and an informative process of thought. Psychology students, who are probably more representative of “ordinary perceivers’ reasoning”, were more likely to resort to a more spontaneous and natural logic of reasoning, which is underlain by representative thought. Such ordinary reasoning, as observed in this research, is more susceptible to moral, normative and emotional evaluations than to rational and analytical processes of reasoning. Yet, one should consider the possibility that studying psychology may have also made it more likely for psychology students to show such moral and evaluative tendencies. As Guimond’s (1998), in a study of the influence of socialization, suggests, “students in social sciences are regularly exposed to theories, concepts or proposals which highlight the importance of social conditions and which underline the limits imposed on human behaviour by the social, economic or political environment”.

Thus, respondents could have been more likely to assess responsibility in these different studies in correspondence with their academic socialization, in line with previous findings about the influence of socialization on different social evaluations (Collard-Bovy & Galand, 2003; Guimond, 1992; Guimond, Begin & Palmer, 1989). However, let us caution that the role of socialization in this study must be relativized with regard to the fact that respondents were in their first year of studies. Indeed, socialization effects are likely to increase with the length of time spent studying in a given field (Guimond et al., 1989). We can thus presume that, if this research had been carried out with psychology and law students in their 4th year of study, differences in responsibility evaluations would have been even more pronounced when comparing responses. More specifically, in this hypothesis, psychology students’ responses, because of their academic background, would have been more marked, in terms of their tendency to take into account the influence of social and environmental factors, when evaluating the responsibility of the agent. In that sense, because of their robust psychological lens, 4th year psychology students’ would have probably been less representative of ordinary thought about responsibility, in the sense of the everyday lay perceptions made by the ordinary man. Yet, this is also why we chose 1st year psychology and law students in this study. We wanted their exposure to their field of study to be minimal, in order to demonstrate that even when respondents’ conditioning is relatively weak, differences can be found and are related to a certain degree to socialization. Let us add that the effects

found in this study may also be somehow explained by self-selection effects (Haley & Sidanius, 2005), whereby people may be more likely to join an academic orientation which corresponds to their socio-political views. In this perspective, psychology and law students chose their respective fields of studies, according to their values and the manner in which they view the world around them. But, in view of previous findings investigating this hypothesis (Guimond et al., 1989), we find such an explanation rather unconvincing.

1.3.4. Ordinary reasoning and legal reasoning: an illustration of social thought and cognitive polyphasia

Let us add that when legal cues are not salient, respondents who are sensitized to the logics of legal reasoning, may reason, in terms of responsibility, more like ordinary perceivers, because the context in which they are responding calls for normative judgments and does not stimulate as much a rational analysis from their part. In that sense, normative influences on ordinary representations of responsibility, such as those described here, are typical illustrations of social thought (Guimelli, 1999). People may reason differently about a given social object depending on the characteristics of the social context and the issues at stake for each respondent as an individual. Thus, when legal cues or references to the legal system are salient, law students may feel more involved in the evaluation and may thus be more likely to refer to a rational logic of reasoning, than when more normative factors are emphasized. By the same token, psychology students, when confronted to legal cues, use the process of reasoning which is the most familiar to them and resort, thus, to more moral and emotional evaluations, instead of responding in terms of rational dimensions. Hence, following Guimelli's (1999) reasoning, psychology students do not make "wrong inferences, but different inferences that are characterized by their own social validity". Moreover, all respondents spontaneously favour a more moral and normative reasoning, at the level of mean ratings, when there are no legal cues to constrain those participants who are legally-trained to a rational process of reasoning.

Overall, this interpretation supports Moscovici's (1961) contention that commonsense understandings of social objects should not be considered as a lesser form of knowledge that should be corrected by those who possess the right knowledge of such objects. Different ways of thinking about a given social object coincide in people's minds, have different functions and may be triggered depending on the context and the needs attached to their social life. This is what Moscovici called cognitive polyphasia. Moscovici defined this concept quite clearly in a dialogue with Anna Markova (Moscovici & Markova, 2000, p. 241):

“People are able in fact to use different modes of thinking and different representations according to the particular group they belong to, the context in which they are at the moment, etc. No further investigation is necessary in order to perceive that even professional scientists are not entirely engrossed in scientific thought. Many of them have a religious creed, some are racist, others consult their “stars”, have a fetish, damn their experimental apparatus when it refuses to work, which is not necessarily quite rational”.

He (Moscovici & Markova, 2000, p.242) also adds that cognitive polyphasia helps to “understand how it is possible, that, not only in different societies, but also within the same individuals, there coexist incompatible ways of thinking and representations”.

Thus, cognitive polyphasia can explain why respondents, who are trained to process rational cues and analyse their legal implications, when judging the responsibility of an agent, will be more likely to turn to moral and emotional attributions of blame when rational cues are replaced by normative ones. In conformity with Durkheim's (1925) distinction between the moral of good and the moral of duty, respondents may be thinking of responsibility in terms of a person's duty of obedience to a legal authority (legal dimension), as well as in terms of a person's role in society and in inter-individual relationships (moral dimension).

2. Moral and legal dimensions of responsibility: different processes of reasoning but overlapping evaluations

Overall, the three studies carried out in this research suggest that blame and legal responsibility are not based on the same processes, but may be in some manner connected depending on the event that is evaluated. These findings provide a significant contribution to the long-lasting debate about whether blame and responsibility are interchangeable constructs or distinct concepts (Alicke, 2000; Harvey & Rule, 1978; Shaver, 1996a).

This research demonstrates quite clearly that ordinary reasoning entails both dimensions of responsibility, but that ordinary people are more likely to reason spontaneously with a moral evaluation than in a legally-oriented manner. As demonstrated with psychology students' patterns of responses for the car-crash event, ordinary reasoning is more likely to follow an evaluative process of reasoning reflecting moral outrage and be less attuned to a rational and analytical processing.

Moreover, across all studies carried out in this research, strong links between the moral dimension of responsibility and evaluations related to negative emotions, controllability, public denunciation, punitiveness and justifications were found, whereas this was much less the case for legal responsibility, which was more related to rational and legal concepts. When respondents attributed blame to a person's behaviour, they referred to the extent to which they think the agent had control over his behaviour and relied on their negative feelings, disagreed with eventual justifications for this behaviour, favoured punitive responses and took into account attitudes favouring punitive aims underlain by a retributive rationale. Legal responsibility attributions were more related to respondents' understanding of elements that are important in legal reasoning, such as the link between awareness of probability of risks and intentionality or the extent of necessary precautions taken to avoid harmful outcomes. The legal evaluation of responsibility was also affected by the legal level of negligence or culpability manipulation, but not by the manipulation of normative criteria. Legal responsibility dimensions were never found to be related to punitive attitudes or responses, negative emotions, as well as justifications for having taken risks.

2.1. Moral responsibility evaluations as spontaneous responses which are not always consistent with legal responsibility

Another noteworthy observation to make in this context is that several findings reveal that respondents, especially psychology students, did not always match their moral responsibility and legal responsibility judgments to the legal realities of the situation they were judging.

Psychology students were more likely to adopt a moral outrage pattern of response and to relate legal responsibility to legal qualifications in an indiscriminate and non-legally consistent manner. More generally, respondents in study 3 were more likely to attribute more moral responsibility and show generally a more punitive stance when judging an irresponsible and harmful behaviour motivated by hedonistic reasons, compared to the duty-driven fatal outcome. However, their legal responsibility judgments were generally influenced by such normative factors.

In that line of reasoning, one should also mention that when comparing mean ratings for all moral and legal responsibility measures, all blame-related measures were generally more favoured by respondents, compared to measures of rational criteria for legal responsibility, across the three studies. Thus, most respondents agreed to attribute blame to the offender without considering that his actions were intentional or strongly agreeing that he was aware of the likelihood that his actions could lead to harmful outcomes. Let us add that t-test analyses confirmed that this assertion is valid for both psychology and law students across all three studies. Mean ratings for all moral and legal responsibility measures across the three studies, for both psychology and law students, are shown in Table 4.1 and 4.2. For study 1, we compared blameworthiness (since it was used to reflect the most moral responsibility in this study) to the legal responsibility mean rating for both types of study and significant differences were observed for both student groups ($t_{psy} (96) = 15.19, p <.001$; $t_{law} (116) = 16.59, p <.001$). Blameworthiness ($m_{psy}=4.32$; $m_{law}=4.23$) was always rated higher than legal responsibility ($m_{psy}=2.63$; $m_{law}=2.52$) for all respondents. In study 2, significant differences were also found between moral and legal responsibility mean ratings for both student groups ($t_{psy} (81) = 20.47, p <.001$; $t_{law} (94) = 14.46, p <.001$). Moral responsibility ($m_{psy}=4.26$; $m_{law}=4.52$) was again more likely to be ascribed than legal responsibility ($m_{psy}=2.24$; $m_{law}=3.04$) by respondents.

Such significant differences were also highlighted across both student groups in study 3 ($t_{psy} (107) = -15.21, p <.001$; $t_{law} (123) = -16.77, p <.001$). Again all respondents rated the agent's moral responsibility ($m_{psy}=4.10$; $m_{law}=4.22$) higher than his legal responsibility ($m_{psy}=2.84$; $m_{law}=2.94$).

Table 4.1.: Mean ratings for all moral and legal responsibility items for psychology students

Measures		Study 1		Study 2		Study 3	
		Mean	S.d.*	Mean	S.d.*	Mean	S.d.*
Legal responsibility	Consciousness	2.89	1.41	3.07	1.26	3.64	1.17
	Voluntariness	3.62	1.28	4.45	0.86	3.57	1.22
	Intentionality	1.39	0.74	1.40	0.66	1.31	0.78
Moral responsibility	Responsibility for the death of the victim	3.90	0.95	4.06	0.88	4.02	0.97
	Accountability before justice	4.32	0.82	4.24	0.84	4.19	0.93
	Blameworthiness	4.32	0.84	4.48	0.79	4.10	1.01

Table 4.2.: Mean ratings for all moral and legal responsibility items for law students

Measures		Study 1		Study 2		Study 3	
		Mean	S.d.*	Mean	S.d.*	Mean	S.d.*
Legal responsibility	Consciousness	2.85	1.32	3.76	1.19	3.53	1.09
	Voluntariness	3.45	1.48	4.69	0.62	3.60	1.17
	Intentionality	1.26	1.40	2.31	1.29	1.68	1.04
Moral responsibility	Responsibility for the death of the victim	3.71	1.02	4.29	0.71	4.02	0.77
	Accountability before justice	4.29	0.84	4.65	0.63	4.19	0.59
	Blameworthiness	4.23	0.97	4.61	0.67	4.10	0.99

Moreover, blame ratings and moral responsibility were consistently found to be related to punitive retributive responses and condemnatory evaluations favouring the public denunciation of the agent's acts, whereas legal responsibility ratings were never found to be related to such punitive and condemnatory responses. Thus, moral responsibility ratings could lead to punitive responses, but consideration for the extent of intentionality and consciousness of the agent's actions may be less likely to be associated to a heightened punitive stance.

These different observations taken together lead us to argue that people may not always morally evaluate a situation in tune with its legal liability implications. Ordinary citizens often do not understand why a person who has caused considerable harm to others is considered legally irresponsible and will, as a result, not be considered guilty and consequently, not liable for punishment (Hans, 1986; Hans & Slater, 1984). This is, for example, the case when a person who presents a serious mental deficiency kills another individual and is not judged responsible for his actions. He is not considered legally liable, because he did not have the mental capacity to be aware of his actions and its consequences. Such cases create often a public uproar, because members of the public cannot fathom the idea that a person who caused such harm will not be recognized legally responsible and will, thus, not be found guilty of such a crime. They need to blame the person who caused a given accident and their desire to attribute moral responsibility will not be mitigated by the fact that agent does not possess capacity responsibility (Finkel & Handel, 1989). Citizens will judge the agent blameworthy, responsible for the death of the victim and think that he should be accountable before justice (moral responsibility), even though they may be less susceptible to attribute intent, consciousness and voluntariness to the agent (legal responsibility). Hence, when moral and legal evaluations of an act are made, the moral culpability of the agent could override rational elements of responsibility in respondents' minds. People most often reason less in terms of consciousness and intentionality, but more in terms of "could have done otherwise" or "ought to have known the risks incurred". Consideration for rational criteria could be less intuitive than moral considerations about the perceived control over one's actions.

2.2. Moral responsibility as an antecedent evaluation of legal responsibility?

If we contend that moral responsibility is a more spontaneous reaction for ordinary perceivers to have when evaluating a harmful event, this could also mean that moral responsibility evaluations are probably necessary for legal attributions to be also made in ordinary reasoning. Moral responsibility ascriptions could be paving the way for legal responsibility attributions to be made when relevant legal cues are salient in the event that

is evaluated. This hypothesis is speculative but is suggested by the finding that moral responsibility was found to be related to legal responsibility in studies 2 and 3 and that this relationship was often more likely when controllability was also rated highly. Since controllability is related to moral responsibility without legal responsibility affecting this linkage, whereas the relationship between legal responsibility and controllability is strongly affected by moral responsibility, moral responsibility evaluations could precede legal responsibility judgments in respondents' minds, especially if they are psychology students. In other words, moral responsibility may be an antecedent response to legal responsibility judgments.

Such a hypothesis can be related to the argument, made in previous discussions (Knobe, 2006; Leslie et al., 2006; Nadelhofer, 2006), that finding someone morally responsible for a given action may motivate the perceiver to consider his actions to be intentional. Let us add that this phenomenon may be explained by Alicke's (2000) blame validation hypothesis which contends that when people are motivated to blame someone, their judgments of controllability and intentionality may be distorted accordingly in the process in order to confirm their moral disapproval stance.

In that sense, we could assimilate the legal dimension of responsibility to the concept of moral reasoning, which according to Haidt (2001), follows moral judgments and serves to justify such intuitive and spontaneous expression of moral reprobation. In other words and to cite Haidt's suggestion, "people often behave more like a lawyer defending a client than a judge or a scientist seeking truth".

More generally, the hypothesis that moral responsibility could be an antecedent evaluation of legal responsibility is supported by Hart & Honore's (1985) analysis that moral blame often precedes legal responsibility, but does not always presuppose it. This perspective is clearly perceptible in their suggestion that "causing harm of a legally recognized sort or being connected with such harm in any of the ways that justify moral blame (...) is not and should not be either always necessary or always sufficient for legal responsibility" (Hart & Honore, 1985, pp. 67).

3. Controllability as an essential determinant of moral responsibility judgments

As we discussed previously, people may spontaneously be more likely to reason more in terms of “could have done otherwise” or “ought to have known the risks incurred” and less in terms of consciousness and intentionality. Consideration for moral evaluations about the perceived control over one’s actions could be more intuitive for ordinary perceivers. This brings us to the role of controllability with regard to moral and legal responsibility attributions. The assessment of the extent of control attributed to the agent over his actions refers to the extent to which the agent could have prevented the harmful outcome from occurring, could have acted otherwise or could have acted with more care, and has often been strongly related to moral blame (Mantler et al., 2003; Shaver, 1985; Weiner, 1995).

Findings in studies 2 and 3 confirm that moral responsibility and controllability are strongly associated elements in ordinary judgments of responsibility. Controllability was also more likely to be related to negative emotions, when moral responsibility was also strongly ascribed. These findings also suggest that controllability could be less of a determining factor for legal responsibility ascriptions, compared to moral responsibility evaluations. Indeed, the linkage between moral responsibility and controllability was never found to be in any way affected by legal responsibility, whereas moral responsibility was consistently found to influence the relationship between controllability and legal responsibility.

Moreover, findings in studies 2 and 3 also suggest that the linkage between moral and legal responsibility could depend to a certain extent on controllability ratings, especially when evaluating a situation of negligent conduct. Such an influence of controllability on the relationship between moral and legal ascriptions of responsibility was found in study 2, for all respondents in the negligence condition, and in study 3, only for law students. This could mean that controllability is a central element that contributes to the relationship between moral and legal dimensions of responsibility when evaluating a situation in which the agent’s culpability level is rather low. Moreover, controllability, especially for law students in study 3, may have been a necessary element for higher

moral responsibility ratings to be accompanied by higher legal responsibility ascriptions for an event that could be evaluated at the most as constituting legal negligence. This finding adds an important contribution to the understanding of the role of controllability with regard to responsibility attribution in the context of harmful events produced by negligent conduct that can be liable to legal responsibility. This is all the more noteworthy since controllability has mainly been related to responsibility in judgments concerning everyday blame attributions where no legal liability could be determined (Mantler et al., 2003) or without taking into account explicitly the role of rational criteria for responsibility as well (Alicke, 2000).

Given all these findings, three conclusions are warranted. First, controllability seems overall to reflect more a morally tainted evaluation which is related to emotions, justifications and blame and which is more sensitive to normative cues than legal cues. Controllability could be, as suggested by Mantler et al's (2003) study, an antecedent evaluation to moral responsibility ratings and subsequent emotional responses.

Second, controllability may be generally a more determining element in moral responsibility evaluations and their related evaluations, compared to legal evaluations. This interpretation may be explained by Weiner's (2001) suggestion that moral responsibility judgments depend more on controllability than on intentionality judgments, since an uncontrollable action cannot yield a judgment of responsibility, whereas an unintended outcome can lead to such attributions. As Weiner puts it (2001, pp. 335), "controllability is a super-ordinate concept and outcome intention is a subordinate concept, with respect to responsibility" (in the sense of moral responsibility).

Third, controllability may also be an important element to be present for a person who is considered morally responsible for his actions to be also considered legally culpable, when the actions evaluated amount, at the most, to legal negligence. This assumption is supported by the findings that moral responsibility evaluations are more likely to affect legal attributions of responsibility (maybe especially for law students), if controllability is perceived as important for an act of negligence. Thus, these observations are in tune with Alexander & Ferzan's (2009, pp. 79) argument that "one is culpable only for acts over which one has control".

4. A closer look at respondents' punitive attitudes

4.1. A minority of strong retributivists?

Across all studies, respondents' retributive attitudes and responses were only found to be related to moral responsibility evaluations and negative emotions and were never associated with legal responsibility. Utilitarian punishment goals were, on the other hand, never found to be related to blame evaluations or negative emotions. Moreover, retributive attitudes were found to be related to punitive responses, such as favouring the imprisonment of the agent or imposing a concrete sentence, whereas such associations with punitive responses were not found for utilitarian goals. Thus, utilitarian motives did not determine the manner in which respondents reasoned about penal sanctions and were not related to moral blame ascriptions. Retributive perspectives were more likely to determine respondents' punitive responses and to be accompanied by moral blame, especially for psychology students. These findings bring further support to the Carlsmith & Darley's contention that people are intuitive retributivists who react to harmful events with patterns of responses reflecting moral outrage.

Yet, concerning punitive attitudes in particular, certain findings indicate that retribution was not backed by the majority of respondents. Indeed, less than $\frac{1}{4}$ of respondents favoured highly this punitive rationale in study 1 (see chapter II, section 3.10.1), and $\frac{1}{3}$ of respondents showed the same agreement in study 3 (see chapter IV, section 3.8.). Moreover, in terms of mean ratings, in studies 1 and 3, retribution reached generally less agreement than rehabilitation or deterrence objectives for all respondents. In addition, as demonstrated in study 1, the minority of respondents who favoured retribution showed also specific demographic characteristics, since they were globally more likely to support the political right and to have a religious affiliation. These results are consistent with the hypothesis, put forward by previous research, assuming that support for retribution is more likely to be found in people who show conservative political and religious values and who are more likely to adhere to the principle of individual responsibility (Carroll et al., 1987; Languin et al., 2006; Tetlock et al., 2007).

These findings should also be related to the finding, in study 3, that respondents, who held right-oriented political values and religious beliefs, were also more likely to express satisfaction concerning the criminal justice system and its procedural fairness.

These findings altogether can be interpreted through the lens of Altmeyer's (1981) authoritarianism theory (RWA), since political conservatism and religiousness are often associated with authoritarianism in that they contribute to a perception that the social order is legitimate (Leak & Randall, 1995; Wilson & Patterson, 1968). As a matter of fact, the RWA scale, which was developed to measure right-wing authoritarianism (RWA), entails items related to *authoritarian submission* (tendency to abide by authorities), *conventionalism* (tendency to endorse normative rules and laws) and *authoritarian aggression* (tendency to show a harsh stance when rules, norms and laws are infringed). One can easily understand that agreement with such items may be more likely if one holds conservative political values and religious beliefs.

Findings from this research concerning respondents' punitive attitudes provided support to the idea that ordinary reasoning makes a distinction between retributive and utilitarian philosophies and that blame and negative emotions may play a considerable role in this distinction, since they are only related to retributive attitudes. But since retribution was generally less favoured than deterrence or rehabilitation, this may indicate that only a minority of respondents supported such a punishment goal. Moreover, in support for such an interpretation, let us add that most respondents did not endorse the idea that imprisoning the offender could attenuate the harm done across the three studies (mode=2 in all three studies) and imposed a suspended prison sentence to the offender (more than 50% of the respondents agreed at the most with the imposition of a suspended prison sentence). The observation that, only a minority of people hold strong retributive attitudes is also consistent with previous research findings carried out in the Swiss context (Kuhn, 2001; Widmer, Languin, Pattaroni, Kellerhals & Robert, 2004).

The general observation across the three studies that respondents were more likely to endorse specific and general deterrence beliefs, as well as incapacitation aims, than to identify to restorative or retributive goals, when asked about their general punitive attitudes needs also be commented further.

These findings contradict previous observations, since research generally demonstrates that retribution is the response that often dominates when people are asked to inflict punishment on an offender. The finding that only retributive aims were related to punitive responses in both studies 1 and 3 points, for that matter, towards such an understanding. The generally stronger endorsement of utilitarian goals, compared to other goals, that was found in this research may be explained by the type of situation respondents had to evaluate. Even though these goals were general and did not pertain specifically to the scenario that respondents had to evaluate, the punitive attitude measure followed the scenario and respondents may have thought more specifically of this case when responding to this general measure. They may then have favoured utilitarian goals, because they are more relevant to sanction the actions of an agent involved in a fatal road-traffic offense, compared to retributive goals. Keeping the offender off the road and reminding members of the society that dangerous driving is an offense and will be punished may indeed be a more intuitive and commonsense response to fatal road traffic-offenses, than making the offender pay, suffer or giving him the punishment he deserves in proportion of the harm he caused in respondents' minds. These results may be more an indication of a general concern to prevent further road-traffic offenses from being committed, than expressing a moral and public disapproval of the harm done. This observation is in line with Payne et al.'s (2004) findings that deterrence beliefs are also often endorsed by respondents and may be even favoured more than retributive beliefs depending on the type of offense evaluated.

Let us also mention a noteworthy result concerning respondents' attitudes towards restorative responses, compared to punitive ones. When responses are explicitly related to the victim's family's needs, respondents were clearly more in favour of restorative responses, such as apologies and acknowledging one's mistakes, than punitive responses (prison, fine, money). Mean ratings for all responses related to the ways to attenuate the harm done to the victim for studies 1, 2, and 3 are displayed in Table 4.3. In the interest of brevity, we did not separate mean ratings for both types of students for each study, as respondents in studies 1 and 2 rated these different measures similarly, whatever their type of study. Let us note, however, that differences between the two groups of students

were observed in study 3. Indeed, as discussed previously, in study 3, law students were found to be more likely, than psychology students, to support apologies and explanations, as well as money as a moral redress, as a manner to attenuate the harm done to the victim’s family. These differences in mean ratings between psychology and law students can be found in the results section of study 3 (section 3.4.).

Table 4.3.: Mean ratings for all measures related to the ways to attenuate the harm done to the victim’s family for all 3 studies

	Measures	Study 1		Study 2		Study 3	
		Mean	S.d.*	Mean	S.d.*	Mean	S.d.*
Measures to attenuate the harm done	Acknowledging his mistakes	4.07	1.16	3.80	1.19	3.88	1.21
	Apologies and explanations	3.51	1.27	3.28	1.24	3.40	1.16
	Community service work	2.45	1.40	2.25	1.24	2.46	1.30
	Prison time	2.32	1.26	2.54	1.25	2.50	1.15
	Pay a fine	1.99	1.22	1.78	1.00	2.19	1.15
	Money as moral reparation	1.75	1.05	1.95	1.08	2.16	1.06

However, when asked to consider general punitive aims, all respondents, whether in study 1 or 3, showed little agreement with restorative options, such as repairing the trouble caused to social order or repairing the harm done to the victim, as demonstrated in Table 4.4. No significant differences were found between law and psychology students’ ratings.

Table 4.4.: Mean ratings for measures of punitive aims related to restoration

Restorative-oriented punitive aims	Study 1				Study 3			
	Law students		Psychology students		Law students		Psychology students	
	Mean	S.d.	Mean	S.d.	Mean	S.d.	Mean	S.d.
Repair the trouble caused to society	2.87	1.20	2.87	1.29	2.51	1.08	2.25	1.02
Repair the harm done to the victim	2.68	1.24	2.85	1.22	2.39	1.14	2.29	1.17

* S.d. stands for standard deviation value

These mixed results may be due to the fact that respondents only clearly favoured restorative options, when they were directly linked to the situation and they concerned the victim. In the general measure of punitive aims, restorative responses were more abstract and did not only concern the victim, but also the society as a whole.

Anyhow, the fact that respondents endorsed such restorative options is a noteworthy result, which supports the idea that people may be more inclined to accept restorative responses to criminal acts than what is generally thought (Roberts & Stalans, 2004). Our respondents may have endorsed such responses due to the non-violent nature of the offense they evaluated (the victim died because of a negligent or reckless conduct, but no act of violence *per se* was committed by the agent). Restorative justice may, indeed be better accepted by the public for offenses, which do not involve violence (Roberts & Stalans, 2004).

4.2. Retributive responses as favoured spontaneous reactions to concrete events?

One should mention that other findings may add some nuance to the conclusion that retribution may not be an appealing philosophy for most participants. Public denunciation ratings, which were consistently associated to retributive punitive aims and which reveal a rather condemnatory tone, were found to be generally relatively accepted, since a majority of respondents showed moderate to fair agreement with this proposition across the three studies (study 1, $m=3.27$, mode and median=3; study 2, $m=3.34$, mode and median =4; study 3, $m=3.09$, mode and median=3).

These latter findings may indicate that many respondents may support the retributive rationale of re-establishing moral order through the public condemnation of harmful acts, when evaluating a concrete harmful action, such as the car-crash event. Retributive punitive aims and retributive responses favouring the imprisonment of the agent may have been generally weakly accepted because they were not directly related to the agent. Indeed, the measure used to rate respondents' attitudes concerning punishment goals concerned general scales about the different objectives that the criminal justice system may hold when sanctioning a criminal behaviour. As for the measure concerning the imprisonment of the offender, it was formulated in terms of its capacity to attenuate the harm done to the victim's family. Thus, it may have been understood more as a punitive measure with a reparative objective, than a punitive just deserts response *per se*. Respondents were more likely to endorse utilitarian punitive attitudes for a theoretical

and abstract issue, but were more likely, especially if they were psychology students, to also favour a moral outrage response, such as the public denunciation of the agent's acts, for the concrete situation of the agent. One should add that public denunciation, moral responsibility and negative emotions were not found to be in any way related to utilitarian punitive attitudes.

Overall, the fact that many respondents seem to support the moral retributive-oriented public condemnation of a concrete harmful action they have to evaluated, but at the same are more likely to favour utilitarian goals of punishment could be related to the distinction between micro and macro justice highlighted by Carlsmith & Darley (2008). According to this perspective, when respondents are asked about general goals of punishment, an abstract evaluative process is engaged and utilitarian principles will be favoured (*macro justice perspective*), whereas when they are required to assign punishment to an individual described in a specific and concrete situation, a retributive responses is more likely to be triggered (*micro justice orientation*).

Moreover, previous research (Carlsmith & Darley, 2008; Greene et al., 2001) suggested that retributive punitive responses are more intuitive, automatic and emotionally driven, whereas utilitarian responses are the product of a more reasoned process and are not systematically considered. Our findings may also reflect such dual-processing mechanisms, since persistent linkages between retributive responses and attitudes, public denunciation responses, negative emotions and moral responsibility were observed, whereas none of these factors was in any way associated to utilitarian responses.

Another argument to take into account is that the greater endorsement for deterrence-related beliefs at the general level, compared to retributive aims, could also be simply due to the fact that deterrence is a punishment goal which is more frequently invoked by politicians to justify a harsher stance on the violation of legal rules and that respondents may have simply referred to the more salient information in their memory when they expressed agreement with such utilitarian-oriented items.

Finally, one should not forget the possibility that retributive and utilitarian concepts could be related to each other in that they each reflect a form of punitiveness (De Keijser,

van der Leeden & Jackson, 2002). Thus, respondents may have, at the general and abstract level, endorsed more utilitarian principles, whereas at the more concrete level, they endorsed more the idea of restoring the moral balance (public denunciation of the agent's acts), which is related to a more retributive stance.

VI. General conclusions

1. Moral responsibility: conceptual clarifications

These research findings also demonstrate quite clearly that moral-related responsibility measures can be equated to blameworthiness measures, in contradiction with Shaver's (1985) claim that blame and responsibility were conceptually different dimensions. Shaver had based his argument on the fact that blame was strongly affected by justification and excuses, whereas responsibility was not. We suggest that Shaver may have been thinking more of the legal dimension of responsibility and its rational criteria when referring to "responsibility". This statement is based on several arguments.

In this research and especially in study 3, all moral-related responsibility measures were found to be strongly affected by the justification condition, as well as strongly associated to the justification measure. Legal criteria of responsibility were, to the contrary, not affected by the justification condition (except for consciousness) and not at all related to the justification measure.

Moreover, previous research (Alicke, 2000; Mantler et al., 2003; Quigley & Tedeschi, 1996) has always associated blame or moral responsibility to anger, which was also the case in this research, whereas legal responsibility criteria are not directly associated or predicted by such negative emotions.

Finally, factors demonstrating punitive tendencies, such as favouring prison, agreeing with the public denunciation of the agent's acts or favourable attitudes towards punitive aims were always found to be related to moral responsibility, but were never associated to legal responsibility. This confirms the strong linkages existing between blame and punitive responses and attitudes (Carroll et al., 1987; Graham et al., 1997; Taylor & Kleinke, 1992; Weiner, 1995b, 1996).

Given these findings, and after examining what constituted "responsibility" in Shaver's research, we suggest, thus, that Shaver may have been referring more to what we consider to underlie legal responsibility (consciousness, voluntariness and intentionality), when he analyses how people attribute what he calls "responsibility", than

to dimensions such as accountability before justice, responsibility for the death or blameworthiness (what we refer to as moral responsibility criteria). Thus, these contradictions may be more based on a terminological level than on the conceptual level.

2. Moral responsibility and its relationship to emotional and attitudinal correlates

2.1. Negative emotions as strong motivational factors for moral responsibility evaluations

Negative emotions were consistently found to be associated to moral responsibility ratings and were even found, in study 3, to determine linkages between moral responsibility and correlates such as punitive responses and attitudes. As expected, negative emotions were not related to legal responsibility. The observation of the central role of negative emotions in blame attributions and its inexistent influence on legal responsibility ratings is a noteworthy result. Moreover, the fact that negative emotions, along with moral responsibility, were strongly affected by the normative manipulation in study 3 also provides support for the argument that emotional and normative influences are central to determining the level of blame attributed (Alicke, 2000). It confirms previous research findings (Feigenson & Park, 2006; Quigley & Tedeschi, 1996; Weiner, 1996), but it also adds support to various theories concerning the role of emotions in moral and legal decision-making.

The influence of negative emotions is a consistent finding in any research dealing with negative behaviours that violate our moral sense and our societal norms (Reeder & Covert, 1986; Trafimow & Schneider, 1994; Trafimow & Trafimow, 1999; Wojciszke, Bazinska & Jaworski, 1998). However, this moral judgment approach is recent, since moral psychology was, for a long time, dominated by rationalist approaches that emphasized the primary influence of reasoning and reflection in moral knowledge and evaluation processes (Kohlberg, 1969; Piaget, 1973; Turiel, 1983). Furthermore, the last

twenty years have seen the expansion of social intuitionist approaches to moral judgment which afford a central role to moral intuition, which includes moral emotions, in the generation of moral judgments (Haidt, 2003; Wilson, 1997). Moral judgments are, in this perspective, more the products of intuitive or spontaneous affective reactions, than of conscious reasoning processes (Alicke, 2000; Haidt, 2001, 2003). The primary role of such *moral intuitions* can also be more generally related to the rationale guiding dual-process theories of cognition and social judgment (Chaiken & Trope, 1999). However, this does not mean that non-affective processes do not also have an important role in moral evaluations, since cognitive appraisals often colour and guide moral judgments (Pizzaro & Bloom, 2003).

This double influence of emotional and rational factors on moral evaluations was also found in this study. Not only were negative emotions and emotionally-tainted evaluations such as public denunciation, central factors in the blaming process, but rational dimensions of responsibility were also related to moral evaluations of blame. Moreover, as rational criteria for responsibility were sometimes found to be associated to blame ratings, they may have been, as a result, indirectly related to negative emotions (which are strong precursors of moral responsibility). Legal evaluations are most probably, in that sense, not immune to affective and normative influences. This observation adds more fuel to the contention that emotions are central to legal decision-making processes (Bandes, 1999) and cannot be avoided, despite many efforts to try to eradicate them in legal settings (Feigenson & Park, 2006; Gabriel, 2009).

However, as results in study 3 indicate, emotions could also bias a perceiver's responsibility attributions.

Psychology students, in the pleasure-related justification for irresponsible conduct condition, were more likely to agree with retributive punitive aims such as making the person suffer and favouring punitive responses such as prison time, when they ascribed moral responsibility to the agent and also felt high negative emotions about the car-crash. Moreover, all respondents were more likely to feel high negative emotions, ascribe high moral responsibility and controllability, disagree with justification for taking risks and impose harsh sentences in the pleasure justification condition, compared to the duty-

related condition. Moral responsibility, controllability and negative emotions were, thus, strongly influenced by the manipulation of the normative criteria of justification for irresponsible conduct, which lead to a higher tendency to consider this event as not justifiable and to impose harsh sentences on the agent. This demonstrates the blame validation power of extra-evidential factors (Alicke, 2000).

Let us add that the fact that moral and emotional responses were particularly affected by the pleasure justification condition, compared to the duty justification condition, could be also explained by the moral dumbfounding rationale described by Haidt (2001). Moral dumbfounding is suggested by Haidt to occur when people react strongly to an event that they consider as being wrong but cannot provide any valid and justified reasons for this “wrongness” judgment. This phenomenon was observed, for example, when people reacted negatively and disapprovingly to the story of two siblings who decided to engage in sexual intercourse after having both taken birth control measures (Haidt, Bjorklund & Murphy, 2000). In our situation, respondents expressed stronger disapproval, in terms of emotional, punitive, control and blame responses, when the agent was described as having partied all night, compared to when the agent had worked all night, although the fatal outcome was identical in both situations. But, as respondents did not consider one condition more justified than the other, in terms of the risks taken (no main effect of the condition on the justification measure), it may indicate that respondents may not be able to rationalize their higher emotional and moral disapproval of the party situation, compared to the duty situation. As respondents were not asked why they found the party justification less acceptable than the pleasure justification, one can only assume that they were not aware of the reasons why they found the agent’s behaviours more blameworthy when he partied all night, compared to when he worked all night.

In sum, respondents may have been motivated by strong intuitive and spontaneous negative feelings to consider the harmful outcomes of the agent’s actions as more controllable and more morally condemnable, when they were justified by hedonistic reasons, compared to when they were due to performing a duty. Respondents who felt negative emotions, such as anger, may have also felt more confident and certain about the responsibilities related to this event in the pleasure condition and thus, been more likely

to blame the agent in this condition, compared to the other, as suggested by previous findings (Tiedens & Linton, 2001).

We suggest that these findings may overall reflect a good illustration of the influence of affective and motivational factors on moral assessments (Ditto, Pizzaro & Tannenbaum, 2009). Affects, in that sense, may have a normative role in that they act as inherent moral compasses when we evaluate other people's behaviours.

2.2. Moral responsibility and retributive punitive responses and attitudes: a moral outrage response of ordinary perceivers

Strong associations between moral responsibility, negative emotions and retributive punitive aims or responses were also observed in all three studies. As these response patterns are more characteristic of psychology students' perceptions, they could constitute a better reflection of ordinary evaluations of responsibility, than law students' evaluations are.

Moral responsibility evaluations were consistently found to be related to public denunciation across all three studies, especially for psychology students. Linkages between moral responsibility and punitive attitudes and responses were also found across the three studies. Moral responsibility was related to favouring prison time in studies 1 and 3, especially for psychology students. In study, 3, moral blame was also more likely to be related to a retributive rationale, such as wanting the offender to suffer until expiation, only by psychology students. Finally, still in study 3 and only for psychology students, moral responsibility ascriptions were more likely to be accompanied by harsh punitive reactions such as imposing high sentences to the agent and thinking that the criminal justice system is not harsh enough.

Overall, these findings are in line with the analysis that just deserts-related attitudes and responses could be considerably stimulated by moral outrage responses (Darley et al., 2000; Carlsmith et al., 2002). The fact that condemnatory responses favouring the public denunciation of the agent's behaviours were strongly related to moral responsibility and moral responsibility, in turn, was often associated to punitive responses, is consistent

with the hypothesis that ordinary perceivers may be more likely to follow a moral outrage-like pattern of responses when evaluating moral responsibility. Another observation supporting this contention is that public denunciation was also found to be strongly related to punitive responses such as imposing a concrete sentence (study 3) and favouring prison (study 2), especially for psychology students who also ascribed high moral responsibility to the agent. In other words, casting blame on the agent may accompany a need to denounce publicly the harmful behaviour, because it constitutes a violation to moral order, which may, in the end, make it more likely for the perceiver to want to sanction the agent with a concrete sentence and favour his imprisonment. These findings are, as a whole, in support with the idea that ordinary reasoning thinks of punishment in terms of retribution of an individual's harmful actions and its moral deservingness (Feather, 1996). The just desert rationale, in that sense, may be a strong underlying factor of our everyday moral thinking (Finkel, 1997; Goldberg et al., 1999).

Given that public denunciation ratings were more often related to moral responsibility and punitive responses by psychology students, than by law students, these response patterns may again be more representative of ordinary reasoning. Such patterns of response can be related to an analysis brought forward by Becker (1973). According to him, people do not always react automatically to a harmful or immoral conduct, even though it may violate clearly a relevant social norm. They need this behaviour to be pinpointed as deviant through a specific social reaction, in order for it to be sanctioned. The decision to identify an action as deviant is often made by individuals who have a personal interest in publicly denouncing such anti-normative behaviours; these persons are what Becker named *moral entrepreneurs*. Thus, in respondents' minds, especially psychology students, when they decide to ascribe moral responsibility to a norm-violator, they may have wanted to bring this norm-violation to public attention and, through this public condemnation, sanction this castigated behaviour. Let us add also the hypothesis that by "public denunciation", respondents may also be thinking of the mass-media's power of bringing to light norm-violations and thereby influencing public policy agendas (Pritchard, 1992). The reasoning here being that when a harmful conduct is publicly

condemned through widespread media attention, it is more likely to be followed by punitive measures to prevent the occurrence of such behaviours in the future.

Moreover, let us not forget that in study 3, negative emotions were found on several occasions, to affect the linkages between moral responsibility and different punitive responses (making him suffer, favouring the agent's imprisonment, imposing a harsh sentence on the agent and judging that the criminal justice system is not harsh enough). These linkages and the influence of negative emotions on these were only found for respondents studying psychology. The fact that negative emotions were strongly associated to the link between punitive responses and attitudes, public denunciation and moral responsibility supports globally the contention that negative emotions hold a central role in punitive responses (Lerner, Goldberg & Tetlock, 1998), but also on punitive attitudes (Graham et al., 1997; Weiner, Graham & Reyna, 1997).

Finally, as shown in study 3, perceptions that harmful actions are not dealt with harshly enough by the justice system and constitute a threat to social order were strongly related to retributive rationales, such as making the offender suffer, as well as to moral responsibility ascriptions. Such response patterns again were observed especially for psychology students. The perception that offenders are getting away with their actions too easily could be, in that sense, accompanied by punitive attitudes. In other words, feeling that social order should be re-established could make it more likely for the morally disapproving ordinary perceiver to want the offender to pay for his actions.

These results point consistently towards the idea that people may be even more motivated to hold retributive attitudes and to act on them, as well as to cast blame on individuals who violate moral order, if they have reasons to believe that norm violations are not dealt with harshly enough by the criminal justice system (Goldberg et al., 1999; Rucker et al., 2004).

2.3. Moral responsibility and its links with internality-related tendencies

Regression analyses carried out in studies 1 and 2 suggest that moral responsibility was generally related to the preference for internal explanations and perceived internal control in this research. This result was highlighted as much with measures that were developed for the purpose of study 1 concerning the different explanations that could be given to give a meaning to the harmful outcome, as with measures taken from a commonly used internality scale, such as the Levenson IPC scale, in study 2.

In study 1, moral responsibility was, as expected, related to agreeing with measures favouring internal explanations and disagreeing with measures pertaining to external explanations. In study 2, where items coming from the Levenson IPC scale were used to measure the tendency for internality, this tendency was also found to predict moral responsibility. However, since favouring internal explanations in study 1 and the tendency for internality in study 2 were also predictors of legal responsibility, this could indicate that such attitudinal constructs may be both related to moral and legal dimensions of responsibility.

It is worth mentioning here that the internality-externality scale did not yield reliable results across the two studies in which it was used. In study 2, it was a predictor of moral and legal responsibility, but, in study 3, no such linkages were found. The confrontation of these findings to the fact that internal and external mean ratings yielded in study 3 had low alpha ratings¹³¹, compared to those found in study 2¹³², suggests that the internality-externality scale used in this research may not be very reliable. This is all the more possible, since the internality and externality factors produced in studies 2 and 3 with a factor analysis only explained a minimal variance (29.8% in study 2 and 37.8% in study 3). This weak reliability explains also why further analyses were not carried out concerning the linkages between internality and moral and legal dimensions of responsibility. However, one should mention here that the internality-externality scale used in studies 2 and 3 was constituted of the subscales I and C of the Levenson IPC

¹³¹ See note 123 in chapter IV (on study 3) section 3.5, p. 224.

¹³² See chapter III (on study 2) section 2.2 p. 155-156.

scale. Measures related to the P subscale, concerning the influence of powerful others, were not considered, because this element was not considered to be particularly relevant in this research. The fact of having left out this subscale could also explain why this internality-externality scale was not reliable.

Another important clarification to make here is that the scale used in study 1, concerning attitudes favouring internal explanations of events, does not measure the same psychological concept as the measures from the Levenson IPC scale, used in study 2 and 3, do. The measures related to internal explanations of events, used in study 1, did not concern personal control *per se*, but the different reasons related to the individual's lack of education or values that could explain the occurrence of the car-crash. They concerned directly the car-crash event, which could explain why they were associated to respondents' punitive moral outrage response process. To the contrary, in study 2 and 3, the tendency for internality was measured at the beginning of the questionnaire, before respondents rated the car-crash event, because it was believed to act as an anchoring variable that would influence moral responsibility.

Overall, these results suggest that favouring explanatory factors related to the individual may be an important variable to take into account when analysing the manner in which people attribute responsibility. However, the lack of reliable and consistent results yielded by measures coming from the Levenson IPC scale casts doubts on whether such a measure may be appropriate to relate moral and legal responsibility evaluations to the tendency to favour personal control. In fact, the observation of a lack of clear and consistent results showing a link between internality tendencies and evaluations such as responsibility has already been made in previous researches (Dubois, 1994; Devos-Comby & Devos, 2000). Let us add that, given the rather high alpha ratings produced for the measures related to external explanations and explanations related to the individual in study 1, such evaluations may be more relevant to moral and legal responsibility evaluations, than internality tendencies would be. The measure including different explanations of events (including internal and external reasons) that was created for study 1 showed indeed interesting associations to blameworthiness and legal responsibility,

especially concerning disagreement with esoteric and external explanatory factors. Further research should be carried out to examine whether such a measure could be reliable when evaluating responsibility for different situations in which a person is involved in an event leading to fatal outcomes.

3. Limitations and further research openings

Although these research findings are promising, limitations concerning the methods used must be briefly mentioned.

First, the use of scenario vignettes has its drawbacks, even though it is a frequently used methodology in social psychological research. One can wonder if, written descriptions of a given situation, adapted from real-life events, are as powerful in producing authentic evaluations and feelings, as vivid real-world events that would be observed by someone who has to judge them “live” are. This creates the risk that the results produced by vignette studies may be artificial, which makes their application to real life only limited. However, we argue that the weak ecological validity of our results does not affect this research’s value in honing our understanding of the processes involved in moral and legal responsibility and punishment-related decision making. We are well aware that such scenarios can only trigger responses that reflect a tendency or an intention to act, but do not indicate an actual behaviour (Bieneck, 2009). However, this research aimed more at highlighting the processes underlying respondents’ perceptions and interpretations of the car-crash event, than evaluating their actual behaviours and attitudes. Let us add that such behavioural intentions are more likely to be highlighted accurately, if vignettes are plausible and are realistic (Finch, 1987), which was the case in this research, since these criteria were well rated by respondents. Moreover, each scenario used in this research was assessed in a pilot study in terms of its clarity, consistency and uncomplicated formulation, before being used.

Secondly, another comment, which is in line with the first one, concerns the fact that results that were observed in this research were based on participants’ evaluations of a unique scenario. Indeed, a second scenario, concerning a fatal dog attack was constructed

for the use of this research and was used in studies 1 and 2. However, the results, concerning the fatal dog attack were unclear and incomparable to those pertaining to responses about the car-crash scenario in both these studies. Moreover, the link between the agent's actions and the event that lead to the death of the victim was not comparable between the two scenarios (the agent causes the fatal collision, whereas it is the dog which fatally attacks the victim) in terms of responsibility. The processes underlying moral and legal responsibility evaluations highlighted in this research cannot thus be generalized across different situations involving a negligent or a reckless conduct. Future research could verify whether such processes apply to other everyday life harmful events that are increasingly being the object of legal and, sometimes even, penal consequences, such as home and leisure accidents.

Third, this research has enabled us to demonstrate that moral and legal responsibility dimensions are more or less likely to be activated depending on the nature of the cues that are salient in the harmful event that is evaluated. Legal responsibility is more likely to be ascribed when rational and legal cues pertaining to levels of culpability are included, whereas moral responsibility is more likely to be favoured when normative cues related to more or less irresponsible behaviour are salient. However, these findings were observed across the three studies carried out in this research, but were not highlighted all together for the same participants and in the same study. A future research should, thus, be conducted to manipulate rational and normative cues at the same time in order to compare their relative influence on legal and moral responsibility. This would enable us to assess whether moral responsibility is still favoured over legal responsibility when normative and rational cues are simultaneously salient or whether legal responsibility gets the upper hand.

Fourth, as all response scales as well as contextual cues designed to implement the manipulation of independent variables in the scenarios were of linguistic nature, concerns can be raised as to their power to activate accurate and valid responses. We consider this issue particularly relevant for the first part of the questionnaire relating to the measure of respondents' perception of rational criteria of legal responsibility, in studies 1 and 2. The different measures designed to evaluate respondents' perceptions of rational criteria, such as voluntariness, consciousness and intentionality, were rather abstract and formulated in

a very technical manner as to follow legal reasoning. Such formulation, although intentionally done to assess respondents' understanding of these criteria in a manner which is similar to the one used to in legal reasoning, may have confused respondents. However, one finding does run current to this concern. Respondents, across studies 1 and 2, differentiated accurately and in the same graded fashion between different levels of intentionality and consciousness in part 1 of the questionnaire.

Fifth, another potential source of concern should be mentioned concerning the measures of rational criteria for responsibility used in studies 1 and 2 in the first part of the questionnaire. Respondents rated the measures concerning these criteria after having read a small scenario. Even though this scenario was used to contextualise these measures, it could have influenced respondents' perceptions of these criteria in an unwanted manner. This possibly occurred in study 1, since the scenario used to trigger evaluations concerning these criteria was not "neutral" enough and biased respondents' evaluations. The scenario used in study 2 was more neutral, but could have still had an unwanted effect on responses. Further studies concerning people's understanding of criteria used in law should explore different methods for these assessments or refine the methods used in this research to guarantee more empirically valid findings.

Finally, the fact that the sample considered in this research was only composed of university students has also its shortcomings, even though this choice was related directly to some of the hypotheses guiding this investigation. The high level of education of this sample poses important limits on its demographic representativeness. It could explain, for example, why many respondents favoured utilitarian punitive aims over retributive objectives (Carlsmith et al., 2002). We recommend, thus, that future research should address these questions using a more diverse sample which is representative of the Swiss population. Such research should also be carried out with samples of individuals from other countries, as the issues of responsibility and punitivity are subject of much debate in the western world.

4. Implications for criminal policy and decision-making

Given the different findings concerning ordinary representations of responsibility across these three studies, several issues must be highlighted in terms of their implications for criminal policy and decision-making.

4.1. Ordinary reasoning may not spontaneously interpret events in terms of rational criteria of responsibility and legal liability

Ordinary reasoning may perceive roughly different shades of consciousness and intentionality at the abstract level, but does not seem to use them necessarily to analyse a concrete situation in terms of legal liability. Psychology students, in studies 1 and 2, demonstrated that they made a distinction between consciousness and intentionality, on the one hand, and voluntariness, on the other, and roughly identified and distinguished different forms of such criteria at the abstract level. They seemed to understand that intentionality levels can vary depending on elements, such as desire to harm and consciousness of the probability that something bad will happen. Yet, law students were more likely than psychology students to detect the fine nuances between different forms of intentionality and to rate them in consistence with legal reasoning about intent levels. Moreover, even though psychology students roughly understood the differences between rational criteria for responsibility, when they had to evaluate such criteria with regard to a concrete situation, they were less sensitive to such legal cues than law students. In study 1, although all respondents perceived that consciousness was more important in the conscious negligence situation, compared to the unconscious negligence condition, law students understood better, than psychology students did, that the latter condition was more likely to be considered as an act of negligence than the former condition. In study 2, when they had to evaluate these criteria for a given situation (first part of the questionnaire), where cues related to dispositional or motivational factors were rendered neutral and the situation concerned an apparently accidental event, law students were more likely to sense the potential legal implications of such a situation and rated each criteria higher, compared to psychology students. In study 2, law respondents were also

more likely to identify 1) the recklessness condition as reflecting more intentionality than the negligence condition and; 2) the negligence condition as amounting to more negligence and less intentionality. Psychology students rated all conditions as amounting to more negligence, compared to law students and were more likely to rate low intentionality for both conditions as well. Moreover, law students were also more likely to relate the recklessness condition to a different legal liability (intentional homicide) than the negligence condition, compared to psychology students. Law students also showed more sensitivity to legal implications in study 3 in which no salient legal cues were manipulated and the situation described was a car-crash due to fatigue, compared to psychology students. Finally, patterns of responses of law students' concerning legal responsibility and its linkages to legal qualifications or legally relevant concepts demonstrated generally evaluations that were more consistent with the legal realities of the situation evaluated, compared to psychology students.

These findings bring us to the conclusion that ordinary reasoning, as illustrated by the responses psychology students', when evaluating a concrete situation, may not always focus on rational factors and legal liability, if attention for such factors is not explicitly directed by salient cues. In that sense, ordinary reasoning may not spontaneously search for such rational factors when interpreting events. People may perceive offenses more in terms of prototypes, whereby one crime corresponds to a series of characteristics and attributes that are associated to certain facts, than in terms of the determination of necessary and sufficient conditions (Smith, 1991). Moreover, concrete information on actual objective and explicit behaviours, which is not only related to dispositions and psychological attributes (consciousness, desires, and beliefs), may be more relevant for ordinary reasoning to ascribe responsibility. Robinson & Darley's (1995) research work on blame and liability shows indeed that small differences in terms of actions can make a considerable difference in terms of blame ratings and liability for punishment in ordinary intuitions of justice.

Another reason why ordinary reasoning may be less naturally attuned to rational criteria is that people consider various factors when reasoning about offenses and these factors may weigh differently on their blame judgments depending on the type of offense

or the particular circumstances surrounding its commission (Finkel, 2001; Robinson & Kurzban, 2007). Thus, extra-legal factors can easily sway moral evaluations in one direction or another depending on their nature and relevance for the perceiver (Alicke, 2000; Schlenker et al., 1994).

4.2. The element of consciousness of probability of risks is not a determining factor in ordinary reasoning.

Another important finding that could be significant for criminal policy-making related to road-traffic offenses concerns the absence of relationship found between the element of consciousness of probability of risks and respondents' perceptions of blame, control and liability for punishment. Thus, in studies 1 and 2, the extent of consciousness of probability of risks and the corresponding intentionality level (none for negligence and some for recklessness) did not affect respondents' ratings of blame, controllability, negative emotions and imprisonment of the agent and only affected their ratings of negligence and intentionality. This contrasts markedly with legal reasoning, since a road-traffic offender involved in a fatal collision convicted for reckless conduct is liable to harsher punishment than if he is convicted for negligence. This reasoning was partly followed by law students in study 2, since they were more likely to qualify the situation of intentional homicide (which is liable to harsher punishment than negligent homicide) in the recklessness condition, compared to the negligence condition. Psychology students considered the situation to amount to an accident, whatever the condition. Moreover, law students, in study 1, were also more likely, than psychology students, to consider the element of consciousness of the probability of risks, as well as the presence of necessary precautions taken to avoid the event, when rating the extent to which the agent had acted out of negligence. Psychology students were, on the other hand, more likely to associate negligence to necessary precautions, as well as evaluative judgments such as carelessness or blameworthiness.

Thus, respondents who did not have an exposure to legal reasoning do not seem to have understood the legal underpinnings of reckless conduct and their more serious consequences compared to negligent conduct. The element of consciousness of

probability of risks does not seem to have been understood as a central factor in determining legal liability and consequent punishment for fatal road-traffic accidents by participants who did not study law.

These findings globally bring forward important questions as to road traffic offenders' perceptions of their liability. This casts serious doubts on whether road traffic offenders would understand the difference between negligence and recklessness, whether in terms of the element of wilful disregard for risks that are known to be highly probable or in terms of the different sentencing levels these two qualifications correspond to. This question is all the more important since research has consistently shown that most reckless drivers are not aware of the risk related to their dangerous driving (Cunningham, 2008). Often under the illusion of control (McKenna, 1993), they tend to overestimate their capacities and to feel immune to the possibility of an accident occurring, because they think they are more competent drivers than most drivers are.

Given all the above-mentioned findings, one wonders if heightened criminal responsibility and harsher sentences can prevent fatal road traffic offenses from being committed, if the risk of fatal consequences is not known or underestimated by the driver. The notions of reasonable precaution and awareness of the probability of risks, which are used in legal reasoning to determine the level of responsibility of an individual involved in a road-traffic offense, are based on a prototypical idea of what a reasonable person would do in a given situation with regard to the particular circumstances of the event. However, this prototypical representation of the reasonable and ordinary man may not fit the reality of people's conceptions of what constitutes reasonable care in light of a probable risk (Green, 1968). This argument may be even more justified, given that people can often underestimate the probability of a risk occurring when they think they are in control (Dejoy, 1989; McKenna, 1993).

4.3. Respondents' punitive responses and their implications for criminal justice policy

The manipulation of levels of legal culpability in studies 1 and 2 did not affect respondents' punitive responses, contrary to the manipulation of normative factors in study 3. Whether respondents were psychology students or law students, in terms of mean ratings, they did not favour the imprisonment of the agent more when his legal liability was higher (conscious negligence in study 1 and recklessness in study 2), compared to when it was lower (unconscious negligence in study 1 and negligence in study 2). All respondents did, however, recommend higher sentences depending on the normative justification that was salient in study 3. Higher sentences were more likely to be recommended if the agent had caused an accident because of fatigue due to partying all night, than if it was the result of fatigue related to working all night. Thus, respondents' punitive responses may not be based on the same principles as those practiced in legal settings. As discussed previously, punitive responses may be based more on negative emotions, moral responsibility and condemnatory responses favouring public denunciation and less on rational criteria and legal qualifications.

Moreover, since a majority of respondents were generally not in favour of imprisoning the agent and did not agree to impose a harsher sanction than a suspended prison sentence, this also indicates that most respondents do not follow the harsh stance taken recently by politicians and legislators in Switzerland concerning fatal road-traffic offenses committed by dangerous drivers.

The respondents in this research, coming from the academic world, cannot be considered as a representative sample of the Swiss population as a whole. We, thus, do not have the pretention to infer from our results whether or not citizens are likely to endorse the increased penalization of such acts. Some answers to this question will be probably provided when the period of time authorized to collect signatures for the Road-Cross popular initiative "against dangerous drivers" ends. Time will tell if proponents of this initiative manage to collect the minimum amount of signatures necessary for a popular vote on the issue.

Let us just conclude by stressing that if most people, like our respondents, do not support harsher sanctions for fatal road-traffic offenses, legal regulation processes and criminal policies may be developing counter current to the community's sentiments and values about justice. We, then, run the risk of creating a rift between the citizen and the authorities in charge of legal regulation and implementation. For that matter, Darley, Tyler & Bilz (2003) express this argument by supporting our assumption that moral wrongfulness may be more instrumental in driving ordinary justice reasoning than the need to deter the offender from further offending that is often stated in political discourse. The fact that an agent whose irresponsible conduct is justified by mature and duty-related factors (working all night to pay for one's studies or to take care of one's children during the day) is evaluated less severely, compared to the agent who partied all night before causing the accident due to fatigue, is another perfect illustration of such a possible gap. It is indeed not expected that in such a situation judges would judge more severely an agent who caused an accident due to fatigue because he partied all night (if all the evidence is there to prove that he was not under the influence of alcohol or drugs), compared to a person who had to work all night. Keeping in tune with community intuitions about justice is central, since citizens are more likely to consider authorities as legitimate and are more likely to comply with societal rules, if they feel that the legal system functions, at least, most of the time in line with their moral intuitions (Darley et al., 2003; Tyler & Huo, 2002).

5. Towards a moralization of responsibility

As a final comment, we would like to stress the more global implications of this research for the meaning of responsibility in the everyday life of ordinary people. Our findings highlight the existence of two overlapping and interrelated conceptions of responsibility, which are based on different reasoning processes. A first dimension of responsibility is blame-related and is based on moral, punitive and emotional responses, which reflect condemnation and indignation. A second facet of responsibility is legally-construed and is based on more rational analytical factors related to the legal implications

of the evaluated behaviour. Moral and legal dimensions of responsibility, as we have demonstrated in this research, are more or less activated depending on the nature of the information given in the situation that is evaluated. When legal and rational cues are salient and are manipulated, the legal responsibility dimension will be more activated than the moral responsibility dimension, whereas the manipulation of normative cues will have more impact on moral responsibility ascriptions than legal ones. The influence of normative cues on the moral responsibility dimension was observed for all respondents, irrespective of their exposure to legal training, and lead also to harsher sentences being imposed. Yet, such a normative effect on responsibility and sentencing evaluations could be a reflection of the hypothesis of the contemporary *moralization of responsibility* (Hier, 2008; Hunt, 2003).

Ordinary conceptions of responsibility have undeniably evolved hand in hand with the contemporary increasing focus on risk avoidance and management, as well as the societal fascination, combined with anxiety, for crimes and victimhood. Individual liberties and autonomy are both cherished and apprehended. Demands for increased freedom of speech, movement or choice are accompanied paradoxically by expectations of protection from the State, which imply regulation processes that can restrict liberty. In this context, individualizing and totalizing discourses concerning responsibility can be observed simultaneously (Hunt, 2003). Individuals are encouraged to take personal responsibility and to take all necessary measures to avoid risk; while responsibility is ascribed to collective populations that are pinpointed as potential sources of risk one should protect oneself from (i.e. dangerous drivers, drug users, paedophiles, rapists).

This tendency to promote individual responsibility can be related to the norm of internality (Beauvois, 1984; Beauvois & Dubois, 1988). This norm was defined by Beauvois & Dubois (1988) as “giving a value to the explanations of psychological events (behaviours and outcomes) that accentuate the weight of the actor as causal factor”. This theory contends that internal explanations are particularly valued in Western liberal societies, because of their social utility. The value that is afforded to personal responsibility and self-sufficiency in our Western individualism-oriented society could, thus, be related to the social value attached to internal causal explanations (Dubois & Beauvois, 2005).

However, with the proliferation of situations that are defined as potentially risky, the ensuing increased responsabilization of individuals is also accompanied by a tendency to transfer the responsibility to others (Hunt, 2003). This reaction of “deresponsibilisation” can lead to absurd judicial decisions, such as the one in which a woman who had spilt coffee on herself and burnt herself obtained financial reparation for damages from the company which sold her the cup of coffee. Another emblematic illustration of such deresponsibilisation is the tendency, for some victims, to claim victimhood as a perpetual status and to not want to take on the responsibility of recovering from such a state (Rauschenbach, 2010b). Let us add that the tendency to locate the cause of accidents in the individual can be considered as due to a certain extent to intellectual laziness and an oversimplification of the world. For example, people prefer casting the blame on human error when there is an accident, instead of investigating the possible external causes for such human failure. Plane crashes have often been explained by pilot error, but other more complex explanations as to why pilots fall asleep or are disoriented while piloting are now gradually put forward. Indeed, some of these cases could have been the result of external causes such as an exposure to toxic substances coming from the combustion of oil in the engine.

Collectivizing discourses designating “irresponsible” groups of people, which represent a threat that should be eradicated, are also part of this moralizing stance (Hier, 2008). Stereotypical depictions of a given social group can, thus, be pinpointed by the mass-media and political actors as deviant “folk devils” (Goode & Ben-Yehuda, 2009). Isolated cases of youth violence can be exaggerated and distorted to symbolize a serious issue of concern for people’s everyday safety. As Goode & Ben-Yehuda (2009) suggest “once a category has been identified in the media as consisting of troublemakers, the supposed havoc-wreaking behaviour of its members reported to the public, and their supposed stereotypical features litanized, the process of creating a new folk devil is complete; from then on, all mention of representatives of the new category revolves around their central, and exclusively negative, features, rendering them demonstrably deviant and stigmatized”. The search for scapegoats aims at social purification through a cathartic transfer of public emotions and anxieties raised by the crime (Fauconnet, 1920). In the same vein, Ricoeur (1994) draws our attention to the contemporaneous move

towards an inflation of the moral concept of responsibility, whereby one is not only accountable for the effect of one's actions, but one has also a responsibility towards others.

Such moralization of responsibility, even though it will probably never be as pronounced in Switzerland, as it is in a country guided by a strong neo-liberal philosophy like the United States, is increasingly creeping up in the Swiss political and media scene. The influence of normative factors on moral responsibility ascriptions that was highlighted in this research could be another indication of this phenomenon. The future will tell whether Swiss citizens will endorse the Road-cross initiative against dangerous drivers, thereby supporting a harsher stance for fatal road-traffic offenses.

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VIII. Appendixes

Appendix 1a

Anne, dans un accès de rage, lance un pot de fleur par la fenêtre de sa cuisine située au 6^e étage d'un immeuble. Le pot de fleur atterrit sur la tête d'un passant et le blesse.

1. A votre avis, dans quelle mesure le fait qu'Anne ait lancé ce pot de fleur par la fenêtre peut-il être considéré comme un acte volontaire :

a) si Anne a voulu lancer ce pot de fleur

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

b) si Anne a agi librement sans contrainte physique ou morale de la part d'une autre personne

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

c) si Anne était motivée à lancer ce pot de fleur

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

d) si Anne a agi de cette façon sans l'intervention d'aucune force extérieure

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

2. A votre avis, dans quelle mesure, Anne peut-elle être considérée comme ayant conscience de son acte :

a) si Anne a pensé à son acte et à ses conséquences avant de le commettre

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

b) si Anne savait avant de lancer ce pot de fleurs que cet acte pouvait être considéré comme punissable par la loi

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

c) si Anne a lancé le pot de fleurs, mais qu'après coup, lorsqu'elle repense à son acte, elle ne comprend pas ce qui s'est passé

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

d) si Anne a pensé à son acte avant de le commettre et a lancé le pot de fleurs en sachant que cet acte pouvait blesser autrui

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

3. Selon vous, peut-on considérer qu'Anne a agi intentionnellement :

a) si Anne voulait blesser un passant en lançant le pot de fleurs par la fenêtre

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

b) si Anne avait l'intention de lancer ce pot de fleurs par la fenêtre et y a renoncé, mais a glissé et le pot est tombé de la fenêtre accidentellement.

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

c) si Anne savait qu'en lançant un pot de fleurs par la fenêtre elle avait de grandes chances de blesser quelqu'un.

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

d) si Anne avait pour seul et unique but de blesser autrui en lançant le pot de fleurs par la fenêtre

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

e) si Anne savait que le pot de fleurs qu'elle a lancé pouvait tomber sur un passant

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

Appendix 1b (car-crash scenario)

The paragraphs that differentiate these two conditions are marked in bold.

Conscious negligence condition

Florian prépare une fête pour célébrer l'obtention de sa maturité. A cette occasion, il a décidé de réaliser un enregistrement vidéo sur ses meilleurs souvenirs. Il demande à un ami, Julien, qui fait une école de cinéma et qui a une caméra vidéo, de filmer certaines séquences de ce film.

Ils se rendent sur une route de campagne et Florian demande à Julien de descendre de la voiture et de le filmer depuis la route pendant qu'il conduit la voiture à grande vitesse au moment il emprunte un virage. Florian dépose donc Julien à la sortie du virage et fait demi-tour pour remonter le virage et le reprendre en direction de Julien. **Avant de reprendre ce virage, Florian appelle Julien pour s'assurer que la voie est libre, qu'aucune voiture n'arrive en face et que Julien est prêt à filmer. Il sait que ce qu'il veut faire peut être dangereux, car il peut perdre la maîtrise de son véhicule et causer un accident.**

Florian démarre et s'engage dans le virage à vive allure. Au moment où il sort du virage, il entend un choc et réalise qu'il vient de percuter Julien sans toutefois l'avoir vu avant la collision. Florian arrête immédiatement son véhicule, se précipite vers son ami qui gît à terre inconscient et appelle police-secours tout en tentant de réanimer Julien. Malheureusement, ce dernier décède quelques instants plus tard sur les lieux de l'accident avant que les secours n'aient pu arriver.

Unconscious negligence condition

Florian prépare une fête pour célébrer l'obtention de sa maturité. A cette occasion, il a décidé de réaliser un enregistrement vidéo sur ses meilleurs souvenirs. Il demande à un ami, Julien, qui fait une école de cinéma et qui a une caméra vidéo, de filmer certaines séquences de ce film.

Ils se rendent sur une route de campagne et Florian demande à Julien de descendre de la voiture et de le filmer depuis la route pendant qu'il conduit la voiture à grande vitesse au moment il emprunte un virage. Florian dépose donc Julien à la sortie du virage et fait demi-tour pour remonter le virage et le reprendre en direction de Julien. **Avant de reprendre ce virage, Florian appelle Julien pour s'assurer qu'il est prêt à filmer la scène et pour lui dire qu'il démarre, sans penser que ce qu'il s'apprête à faire peut être dangereux.**

Florian démarre et s'engage dans le virage à vive allure. Au moment où il sort du virage, il entend un choc et réalise qu'il vient de percuter Julien sans toutefois l'avoir vu avant la collision. Florian arrête immédiatement son véhicule, se précipite vers son ami qui gît à terre inconscient et appelle police-secours tout en tentant de réanimer Julien. Malheureusement, ce dernier décède quelques instants plus tard sur les lieux de l'accident avant que les secours n'aient pu arriver.

3. A votre avis, pensez-vous que :

a) Florian est responsable de la mort de Julien

Pas du tout responsable	1	2	3	4	5	Totalement responsable
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b) Florian était conscient que le fait de conduire à vive allure dans un virage pouvait entraîner la mort de Julien

Pas du tout conscient	1	2	3	4	5	Tout à fait conscient
-----------------------	---	---	---	---	---	-----------------------

c) Florian a librement pris la décision de prendre le volant en sachant que cela pouvait avoir pour conséquence d'entraîner un accident

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

d) Florian a intentionnellement causé cet accident

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

4. Concernant l'histoire que vous venez de lire, êtes-vous d'accord avec les affirmations suivantes :

a) L'acte de Florian doit être publiquement dénoncé

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

b) Florian aurait pu agir différemment

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

c) Florian a commis une faute grave

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

d) Florian a agi avec beaucoup d'imprudence

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

- e) Florian bénéficie de circonstances atténuantes
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|
- f) Florian doit répondre de ses actes devant la justice
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|
- g) Florian n'a pas pris toutes les précautions nécessaires pour éviter ce qui s'est passé
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|
- h) Florian a agi avec négligence
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|
- i) Le fait que Florian n'a pas voulu tuer ou blesser Julien est un facteur diminuant la responsabilité de celui-ci
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|

5. Comment qualifieriez-vous cet événement ?

- a) C'est un accident
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|
- b) C'est un homicide par négligence
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|
- c) C'est un homicide volontaire
- | | | | | | | |
|----------------------|---|---|---|---|---|----------------------|
| Pas du tout d'accord | 1 | 2 | 3 | 4 | 5 | Tout à fait d'accord |
|----------------------|---|---|---|---|---|----------------------|

6. Selon vous, le mal causé aux proches de Julien peut-il être atténué si :

a) Florian est condamné à une peine de prison

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

b) Florian s'excuse auprès d'eux et leur explique les circonstances de l'événement

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

c) Florian leur donne une certaine somme d'argent en guise de réparation morale

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

d) Florian effectue un travail d'intérêt général

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

e) Florian reconnaît ses erreurs

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

f) Florian paie une amende

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

7. Selon vous, dans quelle mesure est-ce que les acteurs sociaux suivants ont une part de responsabilité dans la mort de Julien ?

a) Les parents de Florian

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

b) Les autorités chargées de délivrer les permis de conduire

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

c) Julien

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

8. Selon vous, dans quelle mesure est-ce que les propositions suivantes peuvent-elles s'appliquer à la situation décrite ?

a) C'est la fatalité

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

b) Julien n'aurait pas du se trouver là

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

c) C'est le manque de valeurs des jeunes d'aujourd'hui

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

d) C'est la volonté de dieu

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

e) C'est le manque d'éducation des jeunes dû au laxisme des parents

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

f) C'est bête

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
----------------------	---	---	---	---	---	----------------------

g) C'est la chance

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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h) Julien a pris des risques

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
-------------------------	---	---	---	---	---	-------------------------

i) C'est le manque de normes inculquées dans la société d'aujourd'hui

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
-------------------------	---	---	---	---	---	-------------------------

j) C'était inévitable

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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k) C'est le hasard

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
-------------------------	---	---	---	---	---	-------------------------

l) Si Julien avait agi autrement, cela ne serait pas arrivé

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
-------------------------	---	---	---	---	---	-------------------------

m) Ca aurait pu arriver à n'importe qui

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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Appendix 1d

III. Quelques questions générales concernant la justice vont vous être posées dans cette partie. Veuillez lire attentivement les énoncés et répondre.

1. Veuillez lire attentivement les affirmations suivantes et y répondre à l'aide des échelles ci-dessous.

Dans un procès, lorsqu'une personne ayant commis un crime est condamnée à une sanction pénale (une peine) donnée, cela permet de :

a) aider cette personne à changer ses comportements et façons de percevoir le monde

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

b) mettre cette personne à l'écart de la société

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

c) venger la victime

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

d) dissuader la population de violer la loi

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

e) réparer le trouble causé à la société

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

f) soigner cette personne

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

g) réparer le dommage causé à la victime

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

h) faire honte à cette personne

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

i) faire payer cette personne pour les actes qu'elle a commis

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

j) empêcher cette personne de nuire à la société

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

k) lui faire subir ce qu'elle mérite

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

l) faire réfléchir cette personne pour qu'elle s'améliore

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

m) réduire la probabilité que cette personne commette à nouveau un crime

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

n) rappeler à tous que les règles de la société doivent être respectées

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

o) faire souffrir la personne comme elle a fait souffrir sa victime pour qu'elle expie

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

p) d'apprendre la discipline à cette personne

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

2. Les prochaines questions concernent votre propre expérience de différents aspects de la vie. Veuillez les lire attentivement et y répondre.

a) A quelle fréquence discutez-vous des sujets suivants avec des personnes de votre entourage ?

	Tous les jours ou presque	Plusieurs fois par semaine	Plusieurs fois par mois	Plus rarement	Jamais ou presque
A) Les faits divers de votre région	1	2	3	4	5
B) Les actualités des célébrités	1	2	3	4	5
C) La politique suisse ou la politique de votre pays	1	2	3	4	5
D) Les problèmes de société	1	2	3	4	5
E) Les actualités sportives					
F) Les nouvelles internationales	1	2	3	4	5
G) La chronique judiciaire	1	2	3	4	5

b) A quelle fréquence regardez-vous les émissions suivantes à la télévision ?

	Tous les jours ou presque	Plusieurs fois par semaine	Plusieurs fois par mois	Plus rarement	Jamais ou presque
A) Le téléjournal	1	2	3	4	5
B) Les séries policières	1	2	3	4	5
C) Le sport	1	2	3	4	5
D) Les documentaires sur les problèmes de société	1	2	3	4	5
C) Les émissions de télé-réalité	1	2	3	4	5
E) Les émissions concernant la justice, les tribunaux	1	2	3	4	5

c) A quelle fréquence lisez-vous dans la presse des articles sur les sujets suivants ?

	Tous les jours ou presque	Plusieurs fois par semaine	Plusieurs fois par mois	Plus rarement	Jamais ou presque
A) Les faits divers de votre région	1	2	3	4	5
B) Les actualités des célébrités	1	2	3	4	5
C) La politique suisse	1	2	3	4	5
D) Les problèmes de société	1	2	3	4	5
E) Les actualités sportives					
F) Les nouvelles internationales	1	2	3	4	5
G) La chronique judiciaire	1	2	3	4	5

d) Connaissez-vous personnellement des personnes ayant été blessées ou tuées suite à un acte commis volontairement par autrui ?

- Parmi vos proches (amis, connaissances, famille) Oui Non
- J'ai moi-même été victime d'un tel acte Oui Non

e) Connaissez-vous personnellement des personnes ayant été blessées ou tuées suite à un acte commis accidentellement par autrui ?

- Parmi vos proches (amis, connaissances, famille) Oui Non
- J'ai moi-même été victime d'un tel acte Oui Non

f) Connaissez-vous personnellement des personnes ayant volontairement commis un acte ayant entraîné une atteinte physique ou la mort d'autrui ?

- Parmi vos proches (amis, connaissances, famille) Oui Non
- J'ai moi-même commis un tel acte Oui Non

g) Connaissez-vous personnellement des personnes ayant accidentellement commis un acte ayant entraîné une atteinte physique ou la mort d'autrui ?

- Parmi vos proches (amis, connaissances, famille) Oui Non
- J'ai moi-même commis un tel acte Oui Non

IV. Pour terminer, nous vous prions de compléter des questions vous concernant (ces informations nous sont indispensables en vue de traitement statistique des résultats de l'enquête) :

1. Vous êtes : Femme Homme

2. Votre âge :ans

3. Vous êtes : célibataire marié/e ou concubin/e divorcé/e veuf/e

4. Langue maternelle :.....

5. Nationalité (veuillez indiquer toutes les nationalités si vous en avez plusieurs) :

.....

6. Veuillez indiquer votre année d'études et votre filière d'études

.....

7. Exercez-vous une profession à côté de vos études ? Oui Non

Si oui, laquelle ?

.....

8. Quel est le niveau d'étude le plus élevé que votre père ait atteint ? (**ne choisir qu'une réponse**)

études secondaires

apprentissage

études au collège

études à l'université

Autres.....

9. Quel emploi exerce votre père actuellement ou le dernier emploi qu'il ait exercé ?

.....

10. Quel est le niveau d'étude le plus élevé que votre mère ait atteint ?

Etudes secondaires

Apprentissage

Etudes au collège

Etudes à l'université

Autres.....

11. Quel emploi exerce votre mère actuellement ou le dernier emploi qu'elle ait exercé ?

.....

12. Etes-vous actuellement, du point de vue religieux ?

- Croyant et pratiquant
- Croyant mais non pratiquant
- Non croyant et non pratiquant

13. Comment situez-vous vos préférences politiques sur une échelle Gauche-Droite ?

- Gauche Gauche modérée Centre Droite modérée Droite

14. Etes-vous membre d'une ou plusieurs association(s) ? Oui Non

Si **oui**, laquelle/lesquelles ?

Il est très important pour nous que vous ayez répondu à toutes les questions. Une rapide relecture de vos réponses vous permettra de vérifier que vous n'avez rien oublié.

Si vous avez des questions ou des remarques au sujet de ce questionnaire, n'hésitez pas à me contacter à l'adresse email suivante :
Mina.Rauschenbach@droit.unige.ch

Merci pour votre collaboration !

Appendix 2a

a) Le fait que je devienne ou non un leader dépend surtout de mes capacités.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

b) Ma vie est en grande partie dirigée par des événements dus au hasard.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

c) Le fait d'avoir ou non de ne pas avoir d'accident de voiture dépend surtout de mon habilité au volant.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

d) Quand je fais des projets, je suis presque toujours sûr de les réussir.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

e) Il n'est souvent pas possible de protéger mes intérêts contre des événements malchanceux.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

f) Quand j'obtiens ce que je veux, c'est généralement par la chance.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

g) Le nombre d'amis que j'ai dépend de mon degré de gentillesse personnelle.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

h) J'ai souvent constaté que ce qui doit arriver arrive.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

i) Le fait d'avoir ou de ne pas avoir d'accident de voiture est avant tout une question de hasard.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

j) Pour moi, il n'est pas toujours sage de faire des projets trop longtemps à l'avance car de nombreuses choses s'avèrent être une question de bonne ou de mauvaise fortune.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

k) Parvenir ou non à être un leader dépend de la chance que j'aurai d'être à la bonne place au bon moment.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

l) Je peux à peu près déterminer ce qui arrivera dans ma vie.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

m) En général, je suis capable de protéger mes intérêts personnels.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

n) Quand j'obtiens ce que je veux, c'est en général parce que j'ai travaillé dur pour cela.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

o) Ce sont mes propres actions qui déterminent ma vie.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

p) Que j'aie peu ou beaucoup d'amis, c'est avant tout une question de destinée.

Pas du tout 1 2 3 4 5 Tout à fait
d'accord d'accord

Appendix 2b

4. Après avoir lu cette histoire d'Anne, est-ce que vous jugez :

a) Que l'acte d'Anne était volontaire ?

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

b) Que l'acte d'Anne était intentionnel ?

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

c) Qu'Anne avait conscience du risque qu'elle prenait ?

Pas du tout d'accord 1 2 3 4 5 Tout à fait d'accord

Appendix 2c

The paragraphs that differentiate these two conditions are marked in bold.

Recklessness condition

Florian prépare une fête pour célébrer l'obtention de sa maturité. A cette occasion, il a décidé de réaliser un enregistrement vidéo sur ses meilleurs souvenirs. Il demande à un ami, Julien, qui fait une école de cinéma et qui a une caméra vidéo, de filmer certaines séquences de ce film.

Ils se rendent sur une route de campagne et Florian demande à Julien de descendre de la voiture et de le filmer depuis la route pendant qu'il conduit la voiture à grande vitesse dans un virage. Florian dépose donc Julien à la sortie du virage et fait demi-tour pour remonter le virage et le reprendre en direction de Julien. **Avant de reprendre ce virage, Florian appelle Julien pour s'assurer que la voie est libre, qu'aucune voiture n'arrive en face et que Julien est prêt à filmer. Il sait qu'il y a de fortes chances pour qu'il perde la maîtrise de son véhicule et cause un accident, mais il décide tout de même de démarrer, car il veut à tout prix faire ce film.**

Florian démarre et s'engage dans le virage à vive allure. Au moment où il sort du virage, il entend un choc et réalise qu'il vient de percuter Julien sans toutefois l'avoir vu avant la collision. Florian arrête immédiatement son véhicule, se précipite vers son ami qui gît à terre inconscient et appelle police-secours tout en tentant de réanimer Julien. Malheureusement, ce dernier décède quelques instants plus tard sur les lieux de l'accident avant que les secours n'aient pu arriver.

Conscious negligence condition

Florian prépare une fête pour célébrer l'obtention de sa maturité. A cette occasion, il a décidé de réaliser un enregistrement vidéo sur ses meilleurs souvenirs. Il demande à un ami, Julien, qui fait une école de cinéma et qui a une caméra vidéo, de filmer certaines séquences de ce film.

Ils se rendent sur une route de campagne et Florian demande à Julien de descendre de la voiture et de le filmer depuis la route pendant qu'il conduit la voiture à grande vitesse au moment il emprunte un virage. Florian dépose donc Julien à la sortie du virage et fait demi-tour pour remonter le virage et le reprendre en direction de Julien. **Avant de reprendre ce virage, Florian appelle Julien pour s'assurer que la voie est libre, qu'aucune voiture n'arrive en face et que Julien est prêt à filmer. Il sait que ce qu'il veut faire peut être dangereux, car il peut perdre la maîtrise de son véhicule et causer un accident.**

Florian démarre et s'engage dans le virage à vive allure. Au moment où il sort du virage, il entend un choc et réalise qu'il vient de percuter Julien sans toutefois l'avoir vu avant la collision. Florian arrête immédiatement son véhicule, se précipite vers son ami qui gît à terre inconscient et appelle police-secours tout en tentant de réanimer Julien. Malheureusement, ce dernier décède quelques instants plus tard sur les lieux de l'accident avant que les secours n'aient pu arriver.

Appendix 3a

The paragraphs that differentiate these two conditions are marked in bold.

Young-work condition

Florian est un **jeune étudiant de 20 ans** qui sort d'une longue nuit **de travail** dans une boîte de nuit. **Il travaille la nuit pour pouvoir payer ses études et aller au cours pendant la journée.**

Il est fatigué, **car le travail de nuit est éprouvant physiquement** et il n'arrive pas à compenser, en dormant assez pendant le jour, le manque de sommeil accumulé par **son travail nocturne**. De plus, il a des cours la journée, dont il doit suivre la majorité s'il veut passer son année universitaire. Malgré la fatigue, il doit encore conduire une vingtaine de minutes pour arriver chez lui et pouvoir enfin dormir.

Alors qu'il est dans un virage, sous le coup de la fatigue, il perd la maîtrise de son véhicule et vient heurter de face la voiture qui arrive sur la voie opposée. Le conducteur de la voiture heurtée par Florian décède quelques instants plus tard, avant que les secours n'aient pu arriver. Florian s'en sort avec quelques contusions et une jambe cassée.

Young - party condition

Florian est un **jeune étudiant de 20 ans** qui sort d'une longue nuit **de fête** dans une boîte de nuit. **Il n'est pas tellement du genre à rester chez lui tout seul et adore faire la fête.**

Il est fatigué, **car il sort souvent tard la nuit ces derniers temps** et il n'arrive pas à compenser, en dormant assez pendant le jour, le manque de sommeil accumulé par **ses sorties nocturnes**. De plus, il a des cours la journée, dont il doit suivre la majorité s'il veut passer son année universitaire. Malgré la fatigue, il doit encore conduire une vingtaine de minutes pour arriver chez lui et pouvoir enfin dormir.

Alors qu'il est dans un virage, sous le coup de la fatigue, il perd la maîtrise de son véhicule et vient heurter de face la voiture qui arrive sur la voie opposée. Le conducteur de la voiture heurtée par Florian décède quelques instants plus tard, avant que les secours n'aient pu arriver. Florian s'en sort avec quelques contusions et une jambe cassée.

Older-work condition

Florian est un **homme de 40 ans** qui sort d'une longue nuit **de travail dans une usine. Il travaille la nuit, car il est mieux payé et peut s'occuper de ses enfants le jour, pendant que sa femme travaille.**

Il est fatigué, car **le travail de nuit est éprouvant physiquement** et il n'arrive pas à compenser, en dormant assez pendant le jour, le manque de sommeil accumulé par **son travail nocturne. De plus, il doit s'occuper de ses enfants la journée.** Malgré la fatigue, il doit encore conduire une vingtaine de minutes pour arriver chez lui et pouvoir enfin dormir.

Alors qu'il est dans un virage, sous le coup de la fatigue, il perd la maîtrise de son véhicule et vient heurter de face la voiture qui arrive sur la voie opposée. Le conducteur de la voiture heurtée par Florian décède quelques instants plus tard, avant que les secours n'aient pu arriver. Florian s'en sort avec quelques contusions et une jambe cassée.

Older-party condition

Florian est un **homme de 40 ans** qui sort d'une longue nuit **de fête avec des collègues dans une boîte de nuit. Il aime bien sortir avec ses collègues, car cela lui permet d'entretenir de bonnes relations avec eux dans une atmosphère détendue.**

Il est fatigué, car, **ces derniers temps, il accumule les sorties. Vu qu'il doit travailler pendant la journée,** il n'arrive pas à compenser le manque de sommeil accumulé par **ses sorties nocturnes.** Malgré la fatigue, il doit encore conduire une vingtaine de minutes pour arriver chez lui et pouvoir enfin dormir.

Alors qu'il est dans un virage, sous le coup de la fatigue, il perd la maîtrise de son véhicule et vient heurter de face la voiture qui arrive sur la voie opposée. Le conducteur de la voiture heurtée par Florian décède quelques instants plus tard, avant que les secours n'aient pu arriver. Florian s'en sort avec quelques contusions et une jambe cassée.

Appendix 3b

1. Si vous deviez sanctionner Florian, quelle est la peine qui vous paraîtrait la plus juste ?

Aucune peine	Pas de peine de prison	Peine de prison avec sursis	1 à 6 mois de prison ferme	6 mois à 3 ans de prison ferme	Plus de 3 ans de prison ferme
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0 1 2 3 4 5

2. Dans quelle mesure êtes-vous d'accord avec l'affirmation suivante :

Le fait que Florian veuille rentrer au plus vite chez lui pour aller se coucher justifie le fait qu'il prenne le volant alors qu'il est très fatigué.

Pas du tout
d'accord 1 2 3 4 5 Tout à fait
d'accord

3. Dans quelle mesure êtes-vous d'accord avec l'affirmation suivante :

Florian aurait dû assumer le fait qu'il était fatigué et faire un petit somme avant de prendre la route, plutôt que de prendre le risque de créer un accident en roulant en étant fatigué.

Pas du tout
d'accord 1 2 3 4 5 Tout à fait
d'accord

Appendix 3c

III. Quelques questions générales concernant la justice et les sanctions vont vous être posées dans cette partie.

Pour répondre aux questions vous devez vous demander : Avec quelles propositions êtes-vous le plus d'accord et avec lesquelles vous êtes le plus en désaccord

Utiliser l'échelle d'évaluation suivante :

- 1 Si vous êtes opposé(e) à cette proposition
- 0 Si vous êtes indifférent(e) à cette proposition
- 1 Si vous êtes d'accord avec cette proposition
- 2 Si vous êtes tout à fait d'accord avec cette proposition
- 3 Réserver cette réponse si vous êtes d'accord sans réserves et quelles que soit les conditions.

Veillez lire attentivement les énoncés et y répondre à l'aide des échelles ci-dessous.

Lorsque la justice sanctionne un acte criminel, cela permet de :

- a) aider cette personne à changer ses comportements et façons de percevoir le monde
Pas du tout d'accord -1 0 1 2 3 Tout à fait d'accord

- b) mettre cette personne à l'écart de la société
Pas du tout d'accord -1 0 1 2 3 Tout à fait d'accord

- c) venger la victime
Pas du tout d'accord -1 0 1 2 3 Tout à fait d'accord

- d) dissuader la population de violer la loi
Pas du tout d'accord -1 0 1 2 3 Tout à fait d'accord

- e) réparer le trouble causé à la société
Pas du tout d'accord -1 0 1 2 3 Tout à fait d'accord

f) soigner cette personne

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

g) réparer le dommage causé à la victime

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

h) faire honte à cette personne

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

i) faire payer cette personne pour les actes qu'elle a commis

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

j) empêcher cette personne de nuire à la société

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

k) lui faire subir ce qu'elle mérite

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

l) faire réfléchir cette personne pour qu'elle s'améliore

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

m) réduire la probabilité que cette personne commette à nouveau un crime

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

n) rappeler à tous que les règles de la société doivent être respectées

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

o) faire souffrir la personne comme elle a fait souffrir sa victime pour qu'elle expie

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

p) d'apprendre la discipline à cette personne

Pas du tout -1 0 1 2 3 Tout à fait
d'accord d'accord

IV. Les prochaines questions concernent votre perception de la justice. Veuillez les lire attentivement et y répondre.

1. Parmi les institutions suivantes, pouvez-vous me dire pour chacune d'elles si vous lui faites confiance ou pas :

a) L'école

Pas du tout confiance	1	2	3	4	5	Tout à fait confiance
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b) Les conseil fédéral

Pas du tout confiance	1	2	3	4	5	Tout à fait confiance
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c) La justice

Pas du tout confiance	1	2	3	4	5	Tout à fait confiance
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d) La presse

Pas du tout confiance	1	2	3	4	5	Tout à fait confiance
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e) La police

Pas du tout confiance	1	2	3	4	5	Tout à fait confiance
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f) Les institutions religieuses

Pas du tout confiance	1	2	3	4	5	Tout à fait confiance
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2. Etes-vous d'accord avec les affirmations suivantes concernant la justice en général en Suisse :

a) La justice en Suisse garantit généralement à tous un procès équitable.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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b) Les droits fondamentaux des citoyens sont bien protégés par la justice en Suisse.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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c) Lorsque quelqu'un a affaire à la justice en tant que partie, il bénéficie d'un procès équitable.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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d) Les décisions pénales en Suisse sont presque toujours justes.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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e) Le citoyen peut facilement introduire une action en justice.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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f) La justice donne suffisamment d'informations sur son travail.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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3. Etes-vous d'accord avec les affirmations suivantes sur les procédures au tribunal :

a) Le langage juridique est suffisamment clair.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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b) Quelqu'un doit pouvoir être acquitté si on ne respecte pas la procédure, même s'il y a des éléments de preuve solides contre cette personne.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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c) Le traitement d'une affaire dure généralement trop longtemps

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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d) Les juges traitent tous les citoyens de façon égale.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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4. En général, dans quelle mesure êtes-vous satisfait du fonctionnement de la justice :

Pas du tout satisfait	1	2	3	4	5	Tout à fait satisfait
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5. Veuillez évaluer les affirmations suivantes sur les décisions du juge. Lors de ces décisions, le juge doit tenir compte...

a) de la nature des faits

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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b) des condamnations antérieures du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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c) du dommage subi par la victime

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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d) de l'état mental du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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e) de la situation sociale du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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f) de l'opinion de la population

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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g) de l'âge du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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h) des motifs et intentions de son acte

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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i) des risques de récidive du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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j) du repentir sincère du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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k) de la nationalité du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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l) des charges de famille du suspect

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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m) de l'effet probable de la peine sur le délinquant

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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6. A votre avis, dans quelle mesure êtes-vous d'accord que les causes suivantes peuvent expliquer la criminalité et la délinquance en Suisse aujourd'hui ?

a) Il y a du chômage, des problèmes économiques.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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b) L'école ne remplit pas sa mission.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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c) Il y a une perte de valeurs morales dans la société.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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d) La police n'est pas assez efficace.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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e) Les jeunes ne sont pas assez entourés dans leur famille.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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f) Il y a une perte du sens civique.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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g) Certaines catégories de gens sont vraiment défavorisées.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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h) La justice n'est pas assez sévère.

Pas du tout d'accord	1	2	3	4	5	Tout à fait d'accord
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