# Fire Fighting Ethics

Introductions, and Dealing with Risk and Morality in Rescue Situations



"The Rescue", John Everett, 1855

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## **Summary**

Fire fighting is a relatively unexplored practice in Ethics. As a very modest attempt to sketch some contours of an ethics of fire fighting the first part of this thesis starts by outlining a number of moral problems taken from the (operational repressive) fire fighting practice, namely triage, unwilled rescues, harm causing, and the balance between fire fighter- and victim-safety; concluding that the existence of distinctive accounts of morally important features, like urgency, danger, uncertainty, and a certain dependence on hierarchy creates an incentive for further ethical research in emergency response practices, including of course fire fighting; and suggests a ground for the development of emergency response ethics as a specific field of applied ethics.

The second part of this thesis zooms in on the problem of balancing fire fighter safety against victim safety. The most problematic element in this dilemma is uncertainty, which is closely related to the concept of risk. Both regular contemporary moral theories and decision theory, which is the standard method of dealing with such problems in many practices, seem to be unable to cope with this risk-dilemma. The theory of Hypothetical Retrospection, which is recently developed by the Swedish philosopher Sven Ove Hansson is presented as a promising alternative for dealing with this problem.

#### 1. Introduction

#### 1.1 Introduction

The subject of this research in applied ethics is fire fighting. Probably stemming from a cliché boyish hero dream fire fighting has intrigued me for years. During my study in ethics my interest in this topic increased. I read academic ethical texts in which the authors used rescue situations, including fire fighting cases, as examples. In most instances moral philosophers use such examples to illustrate very specific philosophical concepts and most of the time the examples are fictional and quite farfetched. But such examples nevertheless further increased my interest in the ethics of rescue situations. My personal interest in fire fighting eventually led to the decision to write my Master thesis about this specific rescue service.

As rescue situations are my main interest this research focuses on the operational repressive practice of fire fighting. This means the research is limited to moral issues that are encountered by firemen and -women in the field when responding to emergencies. Policy and prevention, other important parts of contemporary fire fighting, lye outside the scope of this research.

Personal familiarity and experience with risks and safety, gained from participation and employment in rock climbing and other so called adventure sports, led me onto the track of one specific problem, the focus of which is the balance between rescuer- and victim-safety. This problem, which will be further defined and explained in the next paragraph and the corresponding chapters, is the main subject of this research.

### 1.2 Fire Fighting Ethics and Risks

There is more to fire fighting than "putting the wet stuff on the red stuff". A fire fighter's job is to respond to 'non human physical emergencies'. In this job they deal with the protection and rescue of what we seem to value most: our lives and health. Next to that fire fighting is also concerned with the safety of animal life, property and, in some situations, the

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<sup>&</sup>lt;sup>1</sup> For example, Jeff McMahan uses multiple examples of fire fighters placing and replacing safety nets to rescue victims jumping of burning buildings to explain the moral implications of – and complex relation between causing and allowing harm (Mc Mahan, 1993, p.254, 262-263).

<sup>&</sup>lt;sup>2</sup> By 'non human physical emergencies' I mean situations in the physical world that endanger goods that are valued by individual persons and/or society in general. I have used the term 'non human' to make explicit that 'physical emergencies' is not meant in the definition of bodily health failure and the emergencies are not human threats. Responding to these other situations is the job of other emergency responders: law enforcement and EMS (ambulance). This definition matches with the lawfull task of the Dutch fire department. (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 1985) Nevertheless, it should be noted that this distinction between tasks of different emergency responders is not always that clear. For example, fire fighters also practice CPR and other first aid treatments.

environment. These are all things we hold dear, which makes it easy to see that the actions of fire fighters are highly relevant from an ethical perspective.

The goal of this thesis is twofold. The first objective is to highlight a number of specific situations that are interesting from an ethical point of view. By outlining morally difficult cases I will try to show that certain features of fire fighting (and possibly also of other emergency response services) create very specific moral problems. This objective can be seen as a very modest attempt to sketch some contours of an ethics of fire fighting. So far, not much academic ethical attention has been paid to this topic. As I believe that in depth ethical discussion might contribute to the development of both the fire fighting practice and moral philosophy, sketching such an outline might be useful as a starting point for further research and reflection.

The second objective is to offer a more in-depth analysis of one of these problems that fire fighters face: Balancing their own safety against the safety of victims. In the battle against fire and other hazardous environments fire fighters often put their own safety on the line to rescue other people. Although this safety risk comes with the job, it has limits. Fire fighters undergo and conquer many dangers to save lives but their own lives matter as well. We can- and do not expect rescuers to save lives at all costs. Yet it is difficult to say where the boundaries are and why. In this thesis it is not my intention to come up with conclusive answers to this problem or to specific situations in which these problems occur. The goal is to explore this problem from an ethical point of view and investigate ways to deal with it. In analysing this problem it will immediately become clear that the most problematic element in this dilemma is uncertainty, which is closely related to the concept of risk. In the second part of the thesis I will therefore try to answer the following research question:

[How can moral theory be of use in rescue situations where fire fighters have to make risk-subjected decisions concerning their own safety and the safety of human victims?]

I will show why both decision theory (the regular approach in decision making in uncertain situations) and many moral theoretic approaches fail in dealing with the combination of moral values and uncertainty. As an alternative I will present an approach called 'Hypothetical Retrospection'. This moral theory, designed by the Swedish philosopher Sven Ove Hansson, combines the benefits of both decision theory and 'regular' moral theories by taking a more practical approach to moral decision making.

### 1.3 Decision- and Moral Theory

Decision theory is occupied with finding correct decisions. It's biggest challenge are situations where uncertainty about consequences of the decision options is present (which in real-life situations is almost always). In many practices, including fire fighting, decision theory is the regular method of approach to difficult situations. It is often seen as a rational way of coming to decisions providing that the moral values of the situation are already determined by moral theory. In coming to an answer to the research question of the second part of this thesis I will argue that this perception of deviation between both disciplines is flawed and that dealing with the combination of uncertainty and morality in this way is often problematic.

#### 1.4 Research Method

This is a Master thesis in Applied Ethics. The goal is to come to reflected ideas that can be useful to both the regarded practice and the academic field of applied ethics. Like most philosophical studies this is a qualitative study. The methods of research are mainly theoretical. By critically examining philosophical concepts and theory and finding out if- and how they fit in the fire fighting practice I will try to give a clear picture of ethical issues in fire fighting and come to an answer on the research question. Literature study and conceptual analysis are the main instruments of this research. They allow for a critical analysis of core values and arguments. Information, examples and ideas about the practice of fire fighting are gained through the study of theoretical sources as well as through more practical research methods. The theoretic sources include relevant philosophical literature, news reports, and policy reports from government commissioned studies. The more practical methods include interviews with fire fighting professionals and investigation of discussions on professional online fire fighting forums (see references and appendices).

# 2. Fire Fighting Ethics

# 2.1 Introduction and Goal of the Chapter

Although fire fighting has many features that are interesting from a moral point of view not much academic attention in ethics has been paid to fire fighting. In fact, the only concrete work in this field is undertaken by the Swedish philosopher Per Sandin. His first article on fire fighting ethics is titled "Firefighting Ethics: Principlism for Burning Issues" and was recently published in "Ethical Perspectives".<sup>3</sup>

The goal of this chapter is to fulfil the first objective of this research: Highlighting a number of ethically interesting situations that are encountered in contemporary/modern fire fighting. Each paragraph describes a morally problematic situation and points out and explains the morally interesting features and concepts of the case. Note that it is not the intention to come up with solutions or answers to these problems. These difficult moral issues require more detailed exploration and analysis than will be given here. Reviewing these problems is meant to offer an incentive for further research on them.

The final paragraph summarises a number of characteristics of fire fighting/emergency response that from an ethical perspective seem to distinguish this practice from other fields. The specific moral character of emergency rescue situations could be a foundation for the development of a specific field of applied ethics.

# 2.2 Triage

The selection and categorisation of victims according to their need for- and the availability of resources is called triage. In the medical profession triage decisions come into the picture when multiple victims come in at the same time and resources are too little to treat everyone. This might happen in the occurrence of big disasters like earthquakes, plane crashes, epidemics, terrorist attacks, or war. Situations where decisions about prioritising victims are made also occur in fire fighting. One can picture how fire fighters have to choose which victim to carry out of a burning building first or decide which sector of an area to give priority when providing evacuation assistance. The choices they make are situation-dependent and

<sup>3</sup> Some research done in other areas of academic ethics does however match some of the issues that are morally interesting in the fire fighting practice. These areas include emergency ethics, professional ethics and the role of risk in ethics. In this thesis I use literature from all of these fields.

<sup>&</sup>lt;sup>4</sup> The form of triage that is the topic of this paragraph is not to be confused with so called 'structure triage'. Structure triage is a concept used in fire fighting and is concerned with selection and categorisation of structures that are on fire in order to get the best results in saving property. Structure triage is not about saving lives and because of that has less ethical importance. (Brouwer, 2009)

include a number of moral considerations. Two fundamental moral motivations will be introduced in this paragraph. Viewing these concepts from the fire fighters' position will show that triage decisions in this practice are a difficult matter.

The main focus of moral actors who have to deal with triage situations is saving lives. The importance of this doesn't seem to need any justification. Under the assumption that lives are equally valuable a basic starting point of rescue situations is trying to save as many lives as possible. This objective corresponds with the concept of efficiency, the aim of which is to maximize the benefits of the outcome of a situation. In rescue situations, where the main benefit is the safety of lives, maximizing benefits means saving as many lives as possible. This seems like a pretty straight-forward objective. In a fire fighting situation it could generally mean: Get as many people as possible out of the building alive. But applying this principle might be more complex than it looks. Imagine, for example, a situation where a group of fire fighters gets trapped in a burning building when trying to save a group of 'civilian' victims in that building. Their colleagues have to choose which group to give priority in rescue. From the efficiency principle it can be argued that if the civilian group is more numerous (and the chances of rescue are similar for both groups) rescuing this group should have priority. This will save the most lives. But efficiency could also claim the opposite: That before trying to save other victims fire fighters should focus on freeing their trapped colleagues because in future situations (and maybe even during the same emergency) these fire fighters will probably also save people again. Giving priority to saving the trapped fire fighters increases the fire fighters' chance of being rescued and decreases the chance of being saved for other victims. But as it will probably lead to more lives being saved in future emergencies this could be considered to generate a greater benefit, even if it means that in this situation fewer lives will be saved. Should fire fighters let such indirect consequences influence their decisions?

One difficulty with taking considerations like the safety of future victims into account is that they are hard to predict. Regarding the future victims example: No-one knows what the future brings. We can only guess that giving priority to the trapped fire fighters will lead to the most saved lives in the future. Of course people make decisions based on probable future consequences all the time. Life is impossible without assuming certain consequences. But the more remote the expected benefits of actions are the less predictable they will be and the weaker the argument gets. What if among the people that need to be rescued there happens to

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<sup>&</sup>lt;sup>5</sup> Life is valuable, if only because it enables us to value at all. Further theorising on this subject goes far beyond the goal of this thesis.

be a medical student who will probably also save many lives in his profession if he will stay alive to become a doctor and practice his job? Should fire fighters also give priority to rescuing the student because it would indirectly save the most lives? And how about children who might become fire fighters or doctors when they grow up? It should be clear that it is hard to draw a line between what should and what shouldn't count as a relevant effect.

Another difficulty regarding these indirect consequences is that following the efficiency principle to such extent seems to put heavy burdens on the actors. It would probably be very hard and counterintuitive for a fire fighter to leave victims that are in direct danger behind because this would save lives in the future or in some other indirect way. Similarly, fire fighters will find it problematic not to give priority to rescuing their colleagues. These are the people they work with and have to rely on every day. They feel that they have a special obligation towards them. (Interview Paul Jetten; Emanuel and Wertheimer, 2006, p.854; Verweij, 2007, par.2.2-2.3)

A second concept that is relevant for triage situations is equity, or fairness. Equity renders moral actors to give equal weight to equal situations. The content of this definition is connected to what is considered to be valuable. For instance, given the belief that each life is equally valuable, in emergency situations equity could be understood as the assumption that each person should (as much as possible) have an equal chance of getting out of an emergency safely. This initially seems to render fire fighters not to give priority to any person in particular when rescuing victims. Prioritising would change people's chances of getting out of the emergency safely and would be unfair. But in some situations the chances people have are unfair to start from. Children, for example, are physically weaker than adults. Inside of a burning building smoke and heat will exhaust them sooner. They are also less self reliant than grown ups. These characteristics give children a smaller chance of survival in emergency events. This creates an argument to rescue children first. Giving them priority is a way to try to cancel out their disadvantages and equal their chances of survival. This 'priority to the worst-off' criterion could also count for elderly or wounded people. (Kymlicka, 2002, p.57-59; Verweij, 2007, par.2.4)

But equity isn't as straightforward as it might look. Equal treatment of lives can also be interpreted in ways that do create reasons to give some people a higher chance than others of getting safely out of an emergency. The so called 'fair innings' argument asserts that people should have equal opportunities to enjoy life. In rescue situations this could be another argument for giving priority to saving children. Children have had less time and opportunity to enjoy their lives. Saving them first would promote equal consideration as it would increase

their chance of survival and of having the same opportunities in life as adults have had. (Emanuel and Wertheimer, 2006, p.855; Verweij, 2007, par.2.4)

The equity principle could also be used to create an argument with somewhat opposing consequences. The 'fruits of labour argument' is an example of this: In the course of life people act and make choices that shape their lives. They try to make decisions that are good for them and make their lives rewarding. People invest in that. For example, lots of people work hard to ensure their wellbeing in the future. That is the fruit of their labour. According to the fruits of labour argument we should promote the opportunity to enjoyment of these fruits equal to the amount of labour. Rescue priority should then be given to people who have put in a lot of labour without enjoying the fruits of this. This would probably lead to giving priority to a range of middle aged adults who have generally put a lot of energy in shaping their lives, but have not yet received a lot of the fruits of this labour (for example in the form of enjoying their savings). Increasing their chance of being rescued would increase their chance of (deserved) enjoyment of the fruits of their labour. (Dworkin, 1994, p.84-89)

These different interpretations of equal consideration for lives illustrate that the result of applying the equity principle is highly dependent on the precise meaning of what is considered to be valuable in life. As it seems to be very difficult to find a single all-satisfying answer to that question applying the equity principle is not an easy task.

What makes triage decisions even more complex is that the two described fundamental moral motivations, efficiency and equity, sometimes demand conflicting actions from the actor. An example can make this understandable. In his article on fire fighting ethics Per Sandin describes a situation where fire fighters encounter an overcrowded building which they immediately need to evacuate. The only available option is lifting people out of high placed windows. The fire fighters decide to lift girls, who are usually smaller and lighter than boys, out first. Getting the smaller and lighter victims out first will go faster and in a shorter time more people can safely be lifted out of the building. From the efficiency principle this looks like a good decision. It assures the safety of as many victims as possible. But from the equity perspective this prioritisation method is problematic. Both groups seem just as helpless in this situation and except for gender, which brings about the general difference in weight and size, they are equal. From an equity perspective it would make more sense to give boys and girls the same chance of being rescued. In these sorts of situations the two principles contradict with each other. Justifying the following of one principle instead of the other or defend some sort of compromise is a difficult moral task. (Sandin, 2009, p.228)

Triage decisions are a complex ethical topic. The urgent and dangerous environments in which fire fighters operate make coping with these dilemmas even more difficult. In practice applying priority criteria might take time which in urgent and dangerous situations could cost extra lives and therefore wouldn't be desirable. Of course this is also a moral decision. To not prioritise, but simply save whoever you can, might be the best way to save as many people as possible and/or be the fairest way to do so.

#### 2.3 Unwilled Rescues

# "Maryland Firefighters Flustered As Customers Refuse To Leave

11-04-2005

PAROLE, Md. A small fire at an Anne Arundel County grocery store turned frustrating for firefighters Wednesday when some shoppers refused to budge from the checkout lines even as smoke filled the aisles. Fire investigators said the blaze at the Giant at the Festival at Riva shopping center started in the paper products section and sent smoke wafting through the entire store, but still some customers didn't get out of line to pay for their groceries.

Anne Arundel County Fire Lieutenant Russ Davies says customers were still in the store when firefighters arrived and that their sluggishness was "extremely dangerous."

He says firefighters had to split their efforts between battling the blaze and escorting shoppers out of the store.

Customers said they didn't mind shopping through the fire and were disappointed firefighters forced them outside."

(Firehouse.com, 2009)

The news report above gives an example of a difficult problem for fire fighters. It is their job to protect people from getting hurt in dangerous circumstances like fires. But what if those people will not cooperate? Should fire fighters force people to evacuate?

An important discussion concerning this question is on paternalism. The basic question of this discussion is if fire fighters can and should decide what is good for others. But, as will be shown, paternalism is not the only concern here. The nature of emergencies makes an important mark on this issue.

Because of their professional training and experience fire fighters are generally a better judge of the dangers of a hazardous situation than laypeople. The fact that fire fighters have expert knowledge when it comes to fires and other emergencies can produce an argument in favour of giving fire fighters authority over other people. Their expertise improves their position to decide what is good for people in emergency situations. In these situations fire fighters might know what is in these 'future victims'' best interest better than these people do themselves. Evacuating them, even against their will, might be best for them. This is a paternalistic argument. Forcing people to do something because it is in their best interest is what paternalism comes down to. In the above case of the ignorant shoppers this paternalistic

argument looks quite convincing. The shoppers do not appear to realise the danger they are in. It is very unlikely that they would prefer being able to shop to being safe. Forcefully removing the shoppers from the building seems to be in their own best interest. If they would learn about the risks of the situation later they would probably be grateful that they were dragged out of the building. (Dworkin, 1994, p.193; Sjöberg, 2000, p.2; Slovic & Weber, 2002, p.8-11)

Although in this example case it seems easy to justify, it isn't evident that fire fighters should have authority over other people in situations of their expertise. Some people defy orders from fire fighters while being fully aware of the risks, burdens and benefits of the situation. In case of big forest- or land fires evacuation orders for nearby residents are common. Such evacuations are ordered when there is a serious risk of death or injury for the inhabitants. Still, a lot of times there are residents who refuse to leave. Some of these people do not seem to recognise the danger they are in, just like the ignorant shoppers. But others refuse while knowing what is at stake very well. They opt to stay to (help) protect their property or livestock which they feel is worth giving their life for. This example identifies that although fire fighters are specialists in analysing emergency situations and predicting possible consequences in these situations, they are no specialists when it comes to knowing the wishes, goals and values of other people. In general we presume that the best judge of that are people themselves. In the forest-fire example the value that the knowingly refusing residents assign to the outcome of a situation appears to be different from the value that the fire fighters assign to it. If this is the case it is not in these persons' best interest to listen to the fire fighters and evacuate. The philosophical notion related to this is autonomy. To elucidate this concept a comparison with another profession is useful: In medical ethics a problem similar to the 'unwilling victims problem' occurs when a patient refuses treatment while the physician, who is an expert in the functioning of the human body, feels that the treatment is vital to the health and wellbeing of the patient which is his job to protect. Contrary to their personal judgement physicians generally accept their patients' choices to decline treatment. This acceptance is based on respect for autonomy. In this setting autonomy refers to the capacity to make one's own informed, un-coerced and reasoned decisions. Having the freedom to execute this capacity is considered to be very valuable. A fire fighter's usual job is to rescue people. This

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<sup>&</sup>lt;sup>6</sup> A news article describing such a situation can be found by following this link: www.ctv.ca/servlet/ArticleNews/story/CTVNews/20080703/wildfire\_cali\_080703?s\_name=&no\_ads

<sup>&</sup>lt;sup>7</sup> In order to avoid making things complicated I will only talk about situations where treatment is refused by patients. There can also be situations where patients wish to receive treatment that a physician does not approve of. This situation is more complex as the autonomy of the physician comes into the picture, in which case the question is whether a physician can refuse to treat a patient or not.

includes an implied duty to do what is in a victim's best interest. But in situations of unwilled rescues fire fighters might need to take the concept of autonomy into account in order to decide what is in a victim's best interest. Rescue/evacuation might not be it. (Dworkin, 1994, p.190-192; Timmons, 2002, p.157)

However, because of specific features of emergency rescue situations respecting victim autonomy might proof to be a difficult task in fire fighting. Clarification can again be given by looking at the medical profession: Discussion and experience from the medical practice have shown multiple requirements that are important in respecting patient autonomy. These requirements essentially come down to determining patient autonomy, and providing conditions to execute this autonomy. Regarding the first, not all patients are competent to make informed and un-coerced reasoned decisions concerning their own welfare. For example, children, demented people and mentally disabled people are often said to possess less than full- or no autonomy. As their own will might not be in their own best interest an argument can be made to treat these patients against their will if this is considered to be in their best interest. In order to respect a person's autonomy it is of course vital to know if a person possesses this capacity. The next step in respecting patient autonomy is to make sure that the autonomous patient also has the opportunity to execute this capacity. In order to make informed, un-coerced and reasoned decisions patients should be provided with relevant, understandable information as well as time to reason about the pro's and con's of the options. These two requirements (securing autonomy and securing provisions for executing autonomy) aren't easily met. (O'Neill, 2003, p.6)

This is especially true in the circumstances where fire fighters operate. In emergency situations time is always short. There is little or no time to investigate autonomy and facilitate autonomous decisions before action has to be taken. How to cope with this problem is a difficult question. For further study of this problem (which is not intended here) a comparison with emergency medicine, where similar problems are met, might proof to be useful. (Naess, Foerde & Steen, 2001, p.71-76)

Although there is no doubt that decisions on issues of paternalism and autonomy are as important as they are difficult, perhaps these matters need not be the decisive factors in dealing with situations of unwilled emergency rescues. The reason for this is that in fire fighting other values are also at stake and it might be stated that not evacuating unwilling people by force (which means letting them stay) consequently leads to the infringement of other morally important matters. This might seem like quite a bold statement and therefore needs to be further explained: When people refuse to evacuate there is a very realistic chance

that they will end up in a dangerous situation where they will want to be- or even count on being rescued from. Even when their decision to stay has been totally autonomous people probably wouldn't mind or even embrace the fire fighter who comes to get them out when things turn bad. Facilitating these rescues would mean exposing fire fighters to dangers that could have been avoided. It would also demand time and resources that could otherwise be used on other eminent matters. A news report about forced wildfire evacuations in the United States shows the reality of this problem:

#### "SoCal wildfires force evacuations from Malibu to Mexico

October 22, 2007

SAN DIEGO – Wildfires fanned by fierce desert winds consumed huge swaths of bone-dry Southern California on Monday, burning buildings and forcing more than 265,000 evacuations from Malibu to San Diego, including a jail, a hospital and nursing homes.

As flames roared down on communities with amazing speed, firefighters complained that their efforts to stop them were delayed when they were confronted by people who refused to leave their homes.

"They didn't evacuate at all, or delayed until it was too late," said Bill Metcalf, chief of the North County Fire Protection District. "And those folks who are making those decisions are actually stripping fire resources."

(Sign On San Diego, 2009)

Depending on the situation, balancing these burdens against the benefits of not infringing autonomy might lead to the conclusion that using force to evacuate people (and thereby avoiding other problems) is the best defendable option. One could of course object that there is no need or obligation for fire fighters to get those non-evacuated people out considering that it was these people's own choice to stay. This would mean that fire fighters wouldn't risk their lives for them and time and resources could be spent otherwise. While in theory this argument might have some convincing power, in practice rescuers don't differentiate between victims who can or cannot help being in the position where they need to be rescued from. This practice can be supported by arguments about the (professional) duty of fire fighters/rescuers to rescue all who are in need of help. But even in situations where there might be convincing moral arguments to allow fire fighters to force 'unwilling victims' to evacuate putting this to practice proofs to be even more complicated. The use of force is a very invasive measure. Using force or even just having the authority to do so can evoke aggression against rescuers, which is the last thing you need in emergencies. Keeping this in mind, it is perhaps for the best that in most countries fire fighters do not have the authority to force evacuations. (Interviews; Gibson, 2003, p.23, 28; Sandin, 2009, p.245)

Nevertheless, unwilled rescues remain a difficult problem. At times fire fighters see no other choice than to fulfil the perhaps irrational wishes of people in order to get them to evacuate. Fire fighters sometimes take great risks and spend precious time and recourses on securing

animals or even property just to keep the owners from getting hurt by trying this themselves. But people are also trying to solve these difficulties. In some parts of Australia the solution is sought in community self-reliance programs, which remove the need and duty of fire fighters to interfere with people's decisions. The United States Federal Fire and Aviation Safety Team takes a different approach and relies on close cooperation between fire fighters and law-enforcement to force evacuations. (Interviews; Bitterroot Fire Institute, 2009; Federal Fire and Aviation Safety Team, 2009).

Advanced analysis of considerations like the ones that have been mentioned in this paragraph might bring forth further developments to increase the safety and wellbeing of victims, fire fighters and other parties concerned in emergencies where the problem of unwilled rescues exists.

### 2.4 Causing Harm

Causing harm is not often associated with the fire fighting profession. Fire fighters deal with fires, hazardous materials, natural disasters and other accidents. They help those who are missing, entrapped and/or endangered out of such hostile environments. The goals of fire fighting seem much closer related to the exact opposite of causing harm: causing benefit. Nevertheless, situations do occur where fire fighters' actions can be said to cause harm. As the goal of fire fighting seems far from causing harm the most obvious situations where harm is caused is when things do not go as planned. Although it is important to contemplate whether such developments are excusable or not, which comes down to deciding whether they could have been foreseen and should have been avoided, this paragraph will address the more extreme setting in which causing harm is deliberately chosen. The reason for this is that the analysis here is meant to highlights the moral concepts that are at the heart of the problem, which can be done clear and efficient by looking at extremes. (Sandin, 2009, p.241-245) The next section will sketch an occasion in which fire fighters have to make a choice that causes harm. In this example case the available options conflict with different moral values and principles, making this a difficult moral dilemma. Although situations like this example will be among the rarest occurrences in fire fighting, evaluating such cases can be an important tool in creating comprehensive rules and policy for the practice. Moreover, a comparison of this problem with a common action performed in fire fighting: emergency driving, will show that seemingly unproblematic actions can have a complicated moral background.

Imagine a situation where due to a cave-in the entrance to a mineshaft has been blocked, trapping a hundred miners with a limited supply of oxygen. Fire fighters arrive at the scene with the goal of freeing the miners. The only way to do this on time is by blowing away the debris with the use of explosives (which are present at the mine). Unfortunately, quick calculations show that doing this will cause another mineshaft, where ten people are working, to collapse. These miners cannot be contacted and evacuated in time before the oxygen of the other miners runs out. Saving the hundred miners will mean killing the ten others. What should the rescuers do? This case triggers our intuition to save the greatest number of people. Yet, many people also feel that killing (innocent) people is wrong. Complex theoretical discussions have been held on this issue. Philosophers have pondered over the moral difference between acting to harm (in this case killing the ten miners) and harming by omitting to act (thereby allowing the death of the hundred miners to take place). Showing that there is a fundamental moral difference between doing and allowing harm would provide a credible argument to state that doing harm is always worse than allowing harm (which would mean that killing the ten miners cannot be justified). So far, the debate over this distinction has not been conclusively settled. (van den Hoven, 2006, p.107; Snyder, 2007, par.1-9) Some philosophers have taken a different approach to solving this problem. They have argued that causing harm can be justified by focusing on the intended consequences of our actions. They hold that if the harm, or bad effect, is not intended but merely a foreseen consequence of an action that is directed at a good effect the action does not have to be considered morally condemnable; that is, as long as the good effect outweighs the bad effect. In this sense the bad effect is only a side effect brought about by the means to the good end. 8 In the mine rescue case the goal is to save the lives of the miners by clearing the entrance of the mine. That this causes the collapse of the other mineshaft, thereby killing the other miners, can be said to be merely a regrettable side effect of this good end. This so-called 'principle of double effect' has widely been criticised for the difficulty of distinguishing foreseen (side) effects from intended (main) effects in all cases. Others believe that there is something more fundamentally wrong with this justification of harmful actions. According to them, the distinction that the principle of double effect promotes forces moral reasoning into an irrational way of decision making and looking at consequences of actions. They say it cannot be denied that when a rational decision is made the consequences that are foreseen are also

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<sup>&</sup>lt;sup>8</sup> Notice that this is a very subtle distinction. The bad effect should not be a means to the good end, but a side effect of the means to the good end.

part of what is intended. From this point of view the principle of double effect is an artificial way of trying to explain that there might be exceptions to the basic moral principle and intuition that causing harm is wrong. (van den Hoven, 2006, p.107; McIntyre, 2009, par.1-4; Timmons, 2002, p77-80, 89-93)

Fortunately, extreme moral dilemmas like the trapped miners example are extremely rare. Nevertheless, it seems important for the fire fighting practice to evaluate moral arguments like the ones enumerated in this paragraph. Not only to be prepared for the worse, but also because these issues are to a degree relevant to more common acts of fire fighting. One undertaking in particular springs to mind: emergency/priority driving. Fire fighters manoeuvre through traffic to get to disaster sites. They exceed speed limits and run traffic lights in order to arrive at emergencies as soon as possible. Although they take precautions, like the use of sirens to alert people; and training and guidelines for fire engine drivers, this behaviour can cause harm as it increases the risk of accidents. When driving to an emergency fire fighters knowingly increase the chances for other road users of getting hurt. Of course emergency driving leads to the rescue of many people. Overall, the benefits of this action are understood to far exceed the burdens. Nevertheless, it's an undertaking that can cause harm and it is with good reason that specific guidelines and rules exist for priority driving of emergency response/rescue services. <sup>10</sup> (Interviews)

Asking critical moral questions like the ones above can be useful in reflection of situations where harm is caused and in further development of guidelines and rules like the ones on priority driving.

When hurrying to an emergency fire fighters do not just put other people at risk. It is also dangerous for themselves. The difficulty of guarding their own safety while trying to save emergency victims is the topic of the next paragraph, which can be seen as an early introduction to the next chapter of this thesis, which deals exclusively and more thoroughly with this problem.

### 2.5 Safety, Rescue and Uncertainty

Along with technological developments in fire fighting, the possibilities for rescuing have grown. In the past, when a house containing possible victims was on fire the only reasonable

<sup>9</sup> This doesn't mean that one desires to do harm. Only that causing this harm is preferred above other options and therefore cannot be denied to be intended.

<sup>10</sup> These guidelines and rules specify for example when it is allowed to cross a red light or how much faster than the speed limit a fire engine may go in what situation.

thing that could be done often was extinguishing the fire from the outside. Assisted by today's modern technology fire fighters can defy smoke, heat and other hazards up to a large degree and attempt rescues inside burning buildings. Technology made it possible to rescue (more) people. Although this development, which is central to contemporary fire fighting, should of course be encouraged, it has made fire fighters' choices more difficult, because unfortunately it has made it more likely that fire fighters would get in trouble themselves. This paradox is due to the fact that the new equipment makes it possible to undertake dangerous activities that were simply impossible before. It is no surprise that safety and rescue decision making is one of the main points of focus in the policy and practice of modern fire fighting. An example will make clear what exactly makes such decisions difficult. (Interviews; Helsloot & van Duin, 1999, p.34-35)

#### Den Haag, June 28, 2003.

A gas-explosion in a building in a busy shopping area in the city of Den Haag causes great damage and multiple trapped and wounded victims. Rescue operations are in full progress when the fire fighting officer of duty (the OvD¹) notices that the rescue-workers (which are all fire fighters) inside the gas-hazardous building are working without breathing protection. He orders them to get this protection and put it on. This causes friction between the rescuers and the officer, as the rescuers are eager to continue their efforts to extricate trapped victims from the debris. They nevertheless comply. Later on, the OvD establishes a severe risk of wall-collapse on the rear side of the building. Inside, a commander and two firemen are still trying to free two victims. The officer notices the extreme danger of the situation. Unfortunately, resources to support the wall are not yet available. He now faces another dilemma: Should he order the rescuers to evacuate until the collapse-danger will be removed, or let them continue their efforts to save the victims as fast as possible? He decides to inform the commander of the group of the danger and leave the decision up to him. Despite the great danger, the commander decides to continue the rescue effort. The wall does not collapse and all victims are saved.

(Helsloot, Ruitenberg & Jong, 2005, p.34-37)

This true case scenario contains two situations where one clear but difficult moral dilemma arises: Balancing the safety of the rescuers against the safety of the victims. The first troublesome situation occurs when the OvD, which is the highest ranked fire fighter on the scene, gives the order to retreat to put on breathing protection. The friction between him and the rescuing fire fighters under his command occurs because the order interrupts the direct rescue work. The officer gives the order out of concern for the safety of his men, but the rescuers feel that it interferes with the task that is currently most important: Getting the victims out of there. The second problem comes about when the instability of the rear wall is discovered. The OvD is (again) faced with the dilemma of choosing between the best option for securing the safety of either the victims or the rescuers. He eventually leaves the decision up to the commander of the group of fire fighters at risk. Fortunately, in this situation there were no lives lost and no fire fighters injured. It was a best case scenario for an emergency

like this. But the consequences could have been much worse. The delay caused by putting on breathing protection could have made a difference for the worse regarding the safety of the victims. In rescue situations often every second counts. In the time needed to put on breathing protection victims might have been seriously injured from long exposure to gas or other dangers. On the other hand, if the officer would not have ordered the rescuers to wear breathing protection they might have been gas-poisoned (as well). This would of course also have been in the disadvantage of the victims. In the second situation, if the building would have collapsed the fire fighters and the victims could have been killed. But if the rescuers would have retreated to wait for materials to support the wall it might have been too late to save the trapped victims. The building could have collapsed in that period, killing the victims that might have been saved if immediate rescue actions were taken. Considering different possible scenarios for this situation brings the problematic nature of the decisions at issue to the front. It shows that no matter what the fire fighters would have chosen it could always have turned out different than expected. In cases like these the values at stake and how they should be weighed are initially quite clear. What matters are the lives of the people involved (rescuers and victims). The question how these values should be weighed in this situation seems to have quite an easy and commonsense answer as well: Although it is a rescuer's job to save others, if the rescuer would know for sure that he would die by saving a victim he surely wouldn't be wrong to reject this action. Saving others is different from trading one's life for that of someone else. Self sacrifice seems too much to ask of rescuers. 11 12 This value balance is however made far more complex by the existence of uncertainty. Reviewing what could have gone wrong in the gas explosion case-example already illustrated this. If you do not know what will happen or how your actions will turn out how do you choose what to do? The relevance of this moral dilemma caused by uncertainty is confirmed by policy- and research literature and professional discussions within the fire fighting practice. <sup>13</sup> In their evaluation of the Den Haag gas explosion case, The Dutch Institute for Safety- and Crisismanagement (COT) notes that the decision whether or not to evacuate the unstable building constitutes a dilemma for which fire fighting procedures and education are not adequately

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<sup>&</sup>lt;sup>11</sup> I do not mean to say that a fire fighter's life is worth more than the life of another person. What I try to explain here is that it is also not worth less and that it makes sense if a rescuer/person chooses for his own life in a situation like this.

<sup>&</sup>lt;sup>12</sup> The credibility of statements like this would probably be improved by grounding them on a comprehensive moral analysis of the duties of fire fighters. As such an analysis reaches beyond the goal of this paragraph I have limited the justification for maintaining this upper boundary of fire fighters' obligations by appealing to common sense.

<sup>&</sup>lt;sup>13</sup> See: Inspectie Openbare Orde en Veiligheid, 2004, p.12, 16, 27-33; Molenaar et al, 2006, p.21-22; Rosmuller, 2006, p.21-24.

developed. According to the COT the dilemma of choosing between 'own safety' and 'saving lives' takes on an extreme form in this uncertain and highly dangerous situation. (Helsloot, Ruitenberg & Jong, 2005, p.42-43; )

An event that recently heated up the United States fire service also demonstrated that safety decisions in rescue situations are an item of much concern in modern fire fighting. In a speech at the Fire Department Instructors Conference (FDIC 2009) FDNY lieutenant McCormack criticised the culture of safety in the United States' fire fighting service. According to McCormack the emphasis that is placed on fire fighters' own safety in contemporary US fire fighting is undermining their "sworn duty" to rescue. In his view the fire service needs a "culture of extinguishment, not safety". His speech started a fierce discussion in all layers of the profession about how the balance between safety and rescue should be. 14 (Thompson, 2009)

So how can the fire fighting practice deal with this relevant difficulty? The usual tactic of dealing with uncertainty in many practices, including rescue services, is the application of some form of decision theory. Developments in- and from this field have no doubt greatly improved the way in which decisions under uncertainty are made. However, the assumption made in this research is that normative ethics should (also) play a crucial part in this. The next chapter will explain this statement by analysing the connections between uncertainty, risk, decision theory, and ethics. This will lead to a proposition of a different method of dealing with morally problematic, uncertain situations. The value of this method for application in the fire fighting practice will also be briefly considered, specifically for the problem explained in this paragraph (Hanson, 2004, p.147; Helsloot & van Duin, 1999, p.57)

# 2.6 Specific Features of Fire Fighting/Emergency Response Ethics

The previous four paragraphs of this chapter described morally difficult situations that are met by fire fighters in their line of work.<sup>15</sup> For each of these problematic situations a brief overview of the criteria, arguments and values that make them morally challenging was given. Some characteristics play a part in all of the examples and seem to be quite specific for emergency response situations. Together, these characteristics seem to distinguish fire fighting, and emergency response practices in general, from other fields where morality has

<sup>15</sup> The previous paragraphs are by no means meant as an exhaustive list of moral problems that can occur in fire fighting. They are selected as being the most important, difficult and interesting cases to present here.

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<sup>&</sup>lt;sup>14</sup> The FDIC even took the video of the speech offline as it was said to conflict with the official opinion of the FDNY. As Lieutenant McCormack had given the speech wearing his FDNY-uniform he was not allowed to publicly express (personal) opinions that were inconsistent with the policies, procedures and positions of his organisation.

developed as an academic field of research.<sup>16</sup> This paragraph consists of a short description of these specific characteristics, all of which can be (directly or indirectly) derived from the following definition of emergency:

"An emergency is a situation, often unforeseen, in which there is a risk of great harm or loss and a need to act immediately or decisively if the loss or harm is to be averted or minimised." (Sorell, 2002, p.22)

# Urgency:

Urgency is already present in the word emergency. In situations in which emergency responders operate it is almost always essential that they work fast. Time is usually short and the matters at hand pressing. This undoubtedly influences moral decisions. (Sandin, 2009, p.234-235)

#### Danger:

Emergency response often involves securing (human) lives. The reason that these lives have to be saved reveals that these situations are often dangerous. Not only to the victims, but also to the rescuers. Fire fighters even run risks to be injured in situations where no lives, but 'just' property or the environment has to be saved. Danger is closely connected to urgency, as it is imperative to be out of danger as fast as possible. (Sandin, 2009, p.232-233)

# Uncertainty:

Emergency situations do not exist on purpose. People did not plan for them. Unsurprisingly they often comprise a large number of unknown elements. Needless to say it is hard to predict how emergencies will turn out. This makes them difficult to prepare for and deal with.

### Hierarchy:

Experience and common sense reveal that the most efficient way for a group to respond to complex situations that require immediate action is by means of a hierarchical command structure. Although the previous paragraphs haven't aimed directly at highlighting this element, it is clear that it brings about certain moral implications with regard to responsibility for actions and consequences.

<sup>&</sup>lt;sup>16</sup> Other fields, like for example business- or (bio)medical ethics.

<sup>&</sup>lt;sup>17</sup> Of course fire fighting ethics also comprises elements that are very familiar in other domains of applied ethics. The values of life, wellbeing and autonomy for example; and the concepts of equity and efficiency.

## Value-plurality:

Applied ethics exists in light of the complexity of morality in different areas of human endeavour. All fields of applied ethics are concerned with complicated moral systems comprising a multitude of moral values. This shows that value-plurality is not a feature that directly distinguishes 'emergency response ethics' from other field of applied ethics.

Nevertheless, the role of the previously mentioned characteristics does seem to create a special/specific setting within which these multiple values exist.

Emergency responders are there to protect everything that is valued by people and can be endangered by emergencies, like fire. This includes human life and health, animal life, material- and economic valuables, the environment, etc.. One of the challenges is determining the relative importance of all these different concerns. (Sandin, 2009, p.231-232)

These characteristics point at the existence of a distinct moral identity of emergency response practices, which creates an incentive for further studies of ethics in practices like fire fighting, and for development of a general field of emergency response ethics. With a focus on the elements of danger and uncertainty the next chapter will make an onset at the former, addressing the 'safety vs. rescue problem'.

### 3. Risk, Ethics and Rescue Situations

# 3.1 Introduction and Goal of the Chapter

This chapter starts by explaining why normative moral theory should have a crucial role in making decisions where risk and uncertainty are present. After this explanation a proposition for a specific theory and method for undertaking this task is presented. This account is then applied to the difficult and stringent moral problem for fire fighters of balancing their own safety against the safety of victims in risk situations. This structure of analysis eventually leads to an answer on the research question that was put forward in chapter one:

[How can moral theory be of use in rescue situations where fire fighters have to make risk-subjected decisions concerning their own safety and the safety of human victims?]

# 3.2 Uncertainty, Chance and Risk

Uncertainty plays a major part in our world and lives. Every day we ask ourselves questions like: Is it going to rain? Will I get stuck in traffic? Can I make this jump? Will they like my presentation? The realisation of the state of affairs to which such questions refer (what actually happens) often influences our wellbeing. For example, I might get sad when I get wet from the rain because it makes me feel cold. As we generally feel that some states of affairs are better than others we want to choose our actions so that the outcome will be (at least) agreeable. If I know it is going to rain and I do not want to get wet I will, for example, choose to take an umbrella with me. Unfortunately, we often do not know how things will turn out. We often face uncertainty. It could be that it does not rain. In that case taking an umbrella with me turns out to be useless. It's only extra luggage to carry. As stated before, if you do not know what will happen or how your actions will turn out how do you choose what to do? In order to get more grip on uncertainties people often estimate chances of what will happen. We assume that the chances of realisation of different outcomes differ. And because future situations will affect our lives we try to predict what can happen and how likely this is so we can adjust our actions to it. By using knowledge, experience and reason we try to construct mental overviews of the likeliness of occurrence of the different possibilities we can foresee. In other words, we assign probability values to the possible outcomes. The reliability of this quantification of uncertainty depends on the quality of our judgement. Chance estimates of experts are usually more reliable than that of laypeople. But although some can be said to be more reliable than others it should be clear that chance estimates do not make that which is

uncertain certain. Estimating chances is merely a tool to give direction to our decisions. The consequences of our decisions that are made under uncertainty can always turn out to be different than we expect. (Hansson, 2002, p.3-4; Slovic & Weber, 2002, p.4, 8-11) Closely related to decision-making under uncertain conditions is the term 'risk'. Although this concept is widely used in many contexts, it can be a bit confusing as it can mean different things. The word risk is often used to point out 'an adverse event or hazard which may or may not occur'. As in: "You run the risk of falling off the ledge." But risk can also be meant in the sense of 'the cause-, consequence-, or probability- of an unwanted event that may or may not occur'; As in: "Stepping too close to the ledge is a risk. You might fall off." (cause), "The risk of falling off the ledge is that you break your leg." (consequence), and "The risk of falling off the ledge is 10%." (probability)<sup>18</sup> In the continuation of this thesis the concept of risk will mainly be used in the first and last definition just mentioned (so, risk as a negatively valued consequence of which there is a chance of occurrence, and risk as the estimated chance or probability that a negatively valued consequence will occur). The first definition is the one that will usually be referred to. When the probabilistic definition is meant this will be evident from the sentence and the context in which it is used. The idea is that, instead of complicating things, using both of these definitions will make the following analysis easier to explain and understand. Once you are aware of it the difference between the two definitions is very clear. Although the definitions of risk are all different, they also have a lot in common. They all deal with unwanted events and uncertainty. Having to do with unwanted events indicates that risk is connected to things we value. When value is connected to questions about good and bad, and right and wrong behaviour we enter the realm of normative ethics/morality. In moral decision making risk often plays an important part. (Hansson, 2002, p.1-2; Slovic & Weber, 2002, p.3-4)

As already mentioned, the regular practice of dealing with risk (and uncertainty) in decision-making is decision theory. In many practices, cooperation between moral- and decision theory is the standard way of dealing with risk in morally difficult situations. The next paragraph addresses the basics of decision theory and its connection to normative ethics. The fourth paragraph of this chapter explains why many moral theories cannot deal with situations of risk, which is why decision theory seems to have a crucial role in moral decision-making. Paragraph 3.5 will show that decision theory nevertheless has major drawbacks as well. This paragraph will also make clear why decision theory and normative ethics shouldn't be

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<sup>&</sup>lt;sup>18</sup> These are four commonly used definitions of the word risk. This is not a conclusive overview. There might be more ways in which the word risk is used.

perceived as separate fields of study, as they often are. In 3.6 an alternative method of dealing with risks in moral dilemmas is proposed. This theory, which is called Hypothetical Retrospection, is specifically designed for this purpose. The value of this method for application in the fire fighting practice is considered in paragraph 3.7

# 3.3 Basics and Benefits of Decision Theory

Decision theory is occupied with the questions 'what should we do?' and 'what do we do?' The former is the realm of normative decision theory, the latter of descriptive decision theory. 'Normative' in normative decision theory seems to suggest that normative ethics plays a major part in this field. However, within the field of decision theory it is generally accepted that normative ethics/moral theory and (normative) decision theory are separate disciplines. The term 'normative' in normative decision theory refers only to the norms of rationality. In this sense normative decision theory is considered to be a purely logical practice occupied with deriving decision preferences by determining the value of different options from given statements about what is valuable. <sup>19</sup> The idea is that normative decision theory is only as right as the value statements it has been given to use. 20 According to this view, when there are morally relevant issues, moral theory and decision theory can be said to work together. First, moral theory provides value statements. Statements about what is valuable (and why). Next, it is up to (normative) decision theory to logically deduce what action is correct given the outcome of different available options. In situations of risk decision theory combines these outcomes with statements about uncertainty and unknown information (probabilities etc.) to calculate the preferable decision. There are many different decision-process theories within the field of normative decision theory. The dominating approach, by far, is expected utility theory. For reasons of simplicity, normative decision theory is in this thesis conflated with expected utility theory. 21 (Hansson, 2005, p.6-7, 13; Hansson, 2002, p.14) The idea that decision theory is separate from moral theory isn't undisputed. In the academic field of normative ethics it is usually recognized as an important goal of moral theory to discover decision procedures for moral action.<sup>22</sup> These are called theories of right conduct or -

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action, which is what decision theory is all about. In fact, utility calculation, which lies at the

<sup>&</sup>lt;sup>19</sup> Next to determining preferable decisions using logic, decision theory is also occupied with meta-subjects; like the basis and reach of rationality and logic, the definition of (un)certainty, etc. (Hansson, 2005)

<sup>&</sup>lt;sup>20</sup> Presuming that rationality/logic is the correct way of conceiving/conceptualizing the world.

<sup>&</sup>lt;sup>21</sup> For the sake of simplicity and understanding the complicated decision-theoretic distinctions between decision-making under known-, incompletely known-, and unknown- probabilities and/or possibilities is also neglected in this thesis.

<sup>&</sup>lt;sup>22</sup> Next to the goal of giving an account of the nature of value.

heart of decision theory (this will be explained further on in this paragraph), is the basis of right action for utilitarian moral theory. In this sense decision theory can be seen as being part of the 'right conduct branch' of utilitarian theory. The reason why decision theory is often seen as separate from morality is because of its cold, calculating nature. Notably, this is exactly the approach that utilitarians wish (and are criticized) for.<sup>23</sup> For now, the question whether decision theory is part of morality or not is of minor importance.<sup>24</sup> At this moment the important thing to notice is that decision theory provides a procedure for coming to decisions, also in situations where moral values are at stake. (Timmons, 2002, p.10-11, 104-106)

Decision theory basically works in the following way: In order to come to a decision it applies the concept of maximization on the given values. What this means is that in deciding on which action/decision is the correct one decision theory aims at finding the one that produces the greatest amount of value. According to its proponents this is the only rational thing to do as it is inherent to value that more of it is better. In determinable and predictable cases, where there is no uncertainty about the consequences of decisions, applying this system seems to be an easy task, assuming that the value of every different option is already decided on by moral theory. The only job left is listing the different options and choosing the one with the highest value. But in reality situations are almost never completely determined. There is always some degree of uncertainty about how a decision will turn out. Unsurprisingly, decision making in situations of uncertainty is the main realm of decision theory. The way in which decision theory finds the preferred decisions in situations of uncertainty is by applying some form of 'probable utility calculation'. Utility refers to the assigned numerical value of outcomes of decisions. For every outcome a probability value is also determined. Basically, the utility of a decision outcome is multiplied by the probability that this utility will be manifested so that the 'probable value' of every option is found. The option with the highest value is the right one. According to decision theory that is the rational answer, and therefore right. A simple example can illustrate the way this works: According to the weather forecast there is a 25% chance of rain tomorrow. I do not like getting wet. The utility I assign to getting wet is -10. To prevent getting wet I could take an umbrella with me tomorrow. But I also consider this to be a burden. The utility I assign to taking an umbrella with me is -3. The utility of staying dry is simply 0. Should I take an umbrella with me tomorrow, or not? I should only do so if the

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<sup>&</sup>lt;sup>23</sup> Utilitarianism and other influential contemporary moral theories will be explained in more detail in the next paragraph.

<sup>&</sup>lt;sup>24</sup> I will get back to this question in the final part of paragraph 3.5 and show that it should have an obvious answer.

utility of not taking an umbrella with me is lower than -3. The probable utility of not taking my umbrella with me depends on the chance of getting wet and the value I assign to getting wet. Putting this in a utility calculation gives: 0.25 \* -10 = -2.5. Obviously, the weather forecast is not improving my day. Nevertheless, to make the best of it decision theory renders me not to take an umbrella with me. This is of course a very basic example. More complex situations inevitably require more complex calculations. (Hansson, 2005, p.21-22, 29; Hansson, 2002, 18;)

A number of aspects make decision theory an attractive method for making decisions. One benefit is that decision theory makes use of mathematical and statistical logic. Logic, or rationality, is a strong foundation for our understanding of the world. Science, philosophy (including moral philosophy) and the general behavior of people are largely based on it. This makes decision theory a reliable and understandable way of arriving at decisions. Related to this methodological clarity is the theory's quality of being definite. Decision theory is designed to come to decisive conclusions about what has to be done. The rational way in which it operates leaves little room for ambiguity about the correct answers. This aspect makes the theory very suitable for use beyond theoretic cases, in real life situations where there is a need for conclusive answers because decisions actually have to be made. Another benefit of decision theory is that it is also action guiding in situations of uncertainty and risk. This quality, which was somewhat explored in the previous part of this paragraph, is an advantage which decision theory has to moral theories. As will be explained the next paragraph, most moral theories cannot cope with risks and uncertainty. As some degree of uncertainty is almost always present in actual situations decision theory seems to be better equipped for dealing with reality than these other theories. However, in paragraph 3.5 it will be shown that the method in which decision theory operates also has problems. Its main flaw is that it cannot operate with values in the way people actually perceive them in risk situations. (Hansson, 2005, p.13; Timmons, 2002, p. 12-14, 122-126, 147-148) This paragraph concludes with a more detailed description of descriptive decision theory: While normative decision theory is occupied with deriving decisions by using rules of logic, descriptive decision theory has developed together with the knowledge that in reality people do not make (completely) rational decisions. The goal of descriptive decision theory is to describe how and what people actually decide. This approach to decision making is often seen as a tool to make normative decision theory more realistic. This means trying to assure that we make the most rational possible decision within the (rationally) limited decision making process that people follow in practice. (Hansson, 2005, p.6-8)

#### 3.4 Ethics and Risks

Modern moral philosophy (mostly) approaches the subject of moral goodness by asking the question: What is the right thing to do? Addressing this question from various angles, a multitude of normative ethical theories all give different argumentations and lots of different answers to this question. This paragraph focuses on the view on this question of three dominating philosophical movements: utilitarianism, deontology, and contractarianism. The specific intention is to throw light on the power of these theories when it comes to evaluating situations where uncertainty exists. For most modern moral theories this turns out to be quite problematic. Throughout its history moral philosophy has mostly concerned itself with deterministic situations, where morally relevant properties are both well-determined and knowable. Although this has resulted in effective approaches for distinguishing numerous morally important elements, the developed decision-making systems often fall short in realistic situations where risk and uncertainty are present. (Hansson, in Lewens, 2007, p.30; Rachels, 2007, p.173-174)

Utilitarian moral theory is based on a very simple, yet appealing, principle: Happiness is what matters. According to utilitarianism happiness is that which is unassailably good. From this core idea utilitarians derive that happiness should be promoted. The more of this primary good is produced, the better it is. The promotion of happiness should therefore be the goal of our actions. This idea can be transformed into the phrase: Bring about the greatest happiness to all those concerned. As long as we cannot look into the future, the best way to make this happen is to act in the way that we expect to bring about this greatest happiness. As already has been made clear, this is where expected utility calculation (decision theory) comes in. The utilitarian view has a number of attractive features. For one, the idea that happiness is at the heart of morality makes a lot of sense. What matters is what we care about/value and essentially this does seem to come down to happiness. "The more happiness the better" is also an understandable thought. Another appealing feature of utilitarianism is that it makes morality impartial. Happiness (or wellbeing) is what counts, no matter whose happiness (or to be precise: everyone's happiness). A third attractive feature is that the idea of promoting happiness seems simple enough to actually put to practice. By using expected utility calculation we can 'simply' calculate what we should do. (Rachels, 2007, p.89-91; Timmons, 2002, p.104-107, 122-123, 147)

There are however also a number of difficulties that are hard to solve for utilitarianism. For example, although everyone understands the concept 'happiness', it isn't specific enough to be useful in practice. To be forceful, a moral theory should specify its principles in such a way

that it can be consistently applied. In this general form the concept is too broad to fulfill this criterion. However, specifying the definition of happiness isn't easy. And even with a specific definition of happiness, how do you measure or predict it? Different things seem to make different people happy and in different degrees. To keep their theory practical utilitarians often limit this definition to assumed amounts of welfare based on averages of health care quality, spending power, lifespan, etc. Such definitions are (at best) less accurate than reality, which leads to some loss of legitimacy of the theory. 25 "Bringing about the greatest amount of happiness to all concerned" also faces another problem. What is the greatest amount of happiness to all? Does this mean the highest net amount of happiness possible, or maybe that every person (or animal, for that matter) has to be happy to the highest minimal degree possible? The former is often assumed and just as often criticized, because it can justify intolerable situations, like slavery, as the good of persons can in this view be sacrificed for the (greater) good of more people. But although these and other problems complicate the application of utilitarian theory, the basic idea remains appealing. Moreover, the conception of moral rightness as a calculable value allows the use of decision theory as a guide for action, which gives utilitarians a way to take account of uncertainties and risk. (Timmons, 2002, p131-134)

Other moral theories seem to leave less room to deal with uncertain situations. Deontology is the joint denomination for moral theories that uphold the idea that an action is right if it is in line with a moral norm, or duty, which holds unconditionally. These theories align with some of the strongest intuitive moral convictions people have, like the idea that killing is always wrong; yet, they can have a hard time dealing with situations in which other strong moral intuitions come into play. For example when disregarding such a duty will have enormous positive consequences. In situations of risk they face another problem: If we have certain duties to perform- or refrain from certain acts it seems rational to extend these duties to situations where the outcome of these acts is uncertain. If killing is wrong, than people should of course refrain from acts that get other people killed. But then it also makes sense to refrain from actions that increase the chance of people getting killed. Although in such cases it is not your intention to kill a person, if you know there is a chance that it will happen (or even stronger; if you don't know that there is no chance that this will happen) this action also seems to go against the moral duty. This line of reasoning makes a morally right life

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<sup>26</sup> For an example of this, see paragraph 2.4.

<sup>&</sup>lt;sup>25</sup> As this problem has quite a large influence on the utilitarian decision making process, which is (decision theoretic) utility calculation, I get back to this problem in the next paragraph.

practically impossible, because there is almost always a chance that your action somehow turns out to conflict with such a duty. A good example of a clearly right action that would be unacceptable when following this argument was given in paragraph 2.4: When driving to an emergency, fire fighters knowingly increase the chances for other road users of getting hurt. The obvious way for deontological theories to solve this problem is to define moral duties in such a way that they can accept probability limits: "actions that put other people in danger are wrong, unless the chance that this occurs is below ...". However, this manoeuvre will strike most deontologists as a betrayal to the uncompromising character of duty-based morality. (Alexander & Moore, 2007, par.2; Hansson, 2002, p21-23)

Contractarian moral theories picture moral behaviour as the outcome of a logical agreement between rational individuals who all strive for the fulfilment of their personal interests. These individuals realise that a 'social contract' is in all of their best interest: By agreeing to obey certain rules of society, one gives up the freedom to do whatever one likes without concern for anyone else. But as these rules exist to protect the good of each person, one gets in return the insurance that at least to some degree one's own wellbeing is protected. The best way to guarantee your interests turns out to be giving up a small part of it. Although the idea of the social contract offers an attractive explanation of moral behaviour, giving concrete rules and criteria for moral decision-making is less easy from a contractarian basis. We can argue about the contents of the social contract in the same way as we disagree about laws and political decisions of our society. This problem is very likely to increase when uncertainty complicates matters. (Rachels, 2007, p141)

In his book: "A Theory of Justice", John Rawls offers a solution to this problem. He introduces 'the veil of ignorance', a hypothetical concept devised to find the moral rules of the social contract. In Rawls' imaginative contract meeting, the individuals who have to agree on the social contract do not know their place and status in the contractually governed society-to-be. They are blind to this because they are behind the veil of ignorance. They can't be sure if they're going to be rich, poor, famous, educated, crippled, athletic, etc. This uncertainty motivates every individual to construct the rules of the social contract in such a way that even the person who would, in the future rule-governed society, be in the worst position would have the minimal requirements to fulfil his needs up to a degree that every individual would minimally require for himself. After all, for all they know the person in the worst position could be them. So if we want to know how to act right we have to picture ourselves in this neutral position and imagine the worst possible position. This appears to be impossible without constructing a neutral concept of value; and in situations of uncertainty, where the

least fortunate position is unknown, some form of utility calculation is also essential. Concrete moral decision making from a contractarian starting point then seems to amount in a form of utilitarian theory. Perhaps contractarianism can better viewed as a socio-political moral theory that can explain and/or justify the basis of politics, democracy and society; than as a moral decision-making theory. (Hansson, 2002, p23-24; Kymlicka, 2002, p.62-63)

## 3.5 Flaws in Decision Theory

Compared to other theories, decision theory seems to be the better option when it comes to dealing with risk and uncertainty. It is no coincidence that it is widely used in fields that deal with these aspects. However, there are some major downsides to decision theory that are often overlooked, or too easily dismissed. In this paragraph the most important concerns will be explored, resulting in the conclusion that decision theory actually is quite unsuitable to deal with (morally relevant) risk situations independently. As decision theory is used by utilitarian moral theory to come to decisions, the arguments in this paragraph are obviously also forceful against utilitarianism.

Decision theory calculates the value of different options and from there arrives at decisions by using the principle of maximisation. As explained, a benefit of this procedure is that it offers a rational and practical way of coming to decisions. However, in situations of moral importance this method faces a problem. This problem has to do with aggregation, which is a basic trait of value-/utility calculation. Aggregation means combining parts to form one whole. Utility calculation is aggregating because it defines the value of an option as the sum of all the value (positive and negative) produced by that option. This implies the presumption that value is quantifiable. Due to aggregation, negative value of an option can always be offset by a larger amount of positive value that is also part of this option, or vice versa. This system works perfect in contexts where losses and gains are interchangeable. For example, in many trade/businesslike situations, where money is all that counts. However, in specific moral situations a difficulty arises: According to many people, some actions can be viewed as inexcusably wrong. They cannot be countered or made permissible by any amount of positive value that is also produced by- or part of the action. In paragraph 2.4, an (quite extreme) example of killing innocent persons was used to illustrate this position. Many people feel that killing (innocent) people is wrong, no matter how many (also innocent) lives it will consequently save. The view that some actions, like killing innocent people, are wrong in themselves can be explained by the claim that moral value cannot, or at least not always, be aggregated. The valuables that are at stake are not interchangeable. If this perception of moral

value is right, it seems that the use of utility calculation for moral problems is limited, because value calculation is of course impossible in situations where valuables are not cumulative. (Rachels, 2007, p.103-107; Timmons, 2002, p.131-134)

As mentioned in the previous two paragraphs, utilitarian theories<sup>27</sup> use utility calculation to make decisions about right action. Supporters of such theories of course claim that moral value can always be aggregated. Value aggregation is the key feature of these theories. But other moral theories deny this position. As explained, deontological theories, for example, uphold the idea that an action is right if it is in line with a moral norm, or duty, which holds unconditionally. This idea does not align with an aggregating decision-making system. You could say that for deontologists 'the right' has priority over 'the good', whereas for utilitarians 'the good' is all that counts. Which theory (if any) is correct remains disputable within moral philosophy. Even so, it is hard to deny that utility calculation strikes a moral nerve in specific situations, like the 'killing of innocents example' of paragraph 2.4. In such situations it fails to comply with deeply held and widely shared moral beliefs. In the evaluation of moral theories (or in this case the decision procedure of a moral theory) compliance with basic moral beliefs and intuitions is an important criterion. <sup>28</sup> Therefore, it seems inevitable to conclude that decision theory is of limited use in situations where striking moral beliefs, like "killing is wrong", play a part. However, in the rescue situations that are the focus of this chapter this is hardly ever the case. In dangerous, uncertain human-rescue<sup>29</sup> situations fire fighters virtually never have to make the choice whether to kill or not, or do anything else that is considered to be morally condemnable in such an absolute way. The morally difficult choices that fire fighters have to make in those situations are captured by the phrase "What is the best thing to do" rather than by "What is the right thing to do". At least for this specific moral problem decision theory seems to withstand the argument of non-computable value. (Alexander & Moore, 2007, par.2; Interviews, Timmons, 2002, p.14-15, 136)

A second weakness of decision theory has to do with the complexity of moral value. This problem was already mentioned in the previous paragraph. Utility calculation gives decision theory a relatively simple, determinate and practical method for deciding what action to take. In many practices that make use of decision theory the definitions of what is valuable are

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<sup>&</sup>lt;sup>27</sup> I do not talk about 'the utilitarian theory' because there are many different varieties of this theory, all of which define what is valuable in different ways.

<sup>&</sup>lt;sup>28</sup> This has to do with the idea that discovering the moral criteria that underlie our moral beliefs is generally considered to be one of the main goals of moral theory. (Timmons, 2002, p. 4)

<sup>&</sup>lt;sup>29</sup> Notice that the focus here is very distinctly on situations where fire fighters take risks to rescue human victims. In situations where fire fighters take risks to save objects or animals the use of utility calculation might indeed be invalidated by the argument of 'non-aggregate-able-ness', as these valuables (objects, animal life and human life) can be said to be on different scales and therefore incomparable.

shaped in a way that corresponds with these attractive features of objectiveness and rationality. They use valuables that are objectively and easy recognisable, measurable, and comparable; like money or amounts of goods, which are all expected consequences of decision options. Unfortunately, when it comes to moral value it does not seem to be that simple. Even in situations where we can consider the valuables to be aggregate-able, it can be very difficult (perhaps even impossible) to objectively identify and measure them. Granted, for some policy decisions it is enough to measure, for example, (expected) lives to be saved or lost, which can be un-problematically done. However, in lots of situations things are more complicated: For example, what is the moral value of promises we have made, considering that losses will occur when we keep these promises?<sup>30</sup> And how do we value our own health and lives (or that of people we know and care for), compared to the health and lives of others? Moral values like these are not straightforward consequences that can easily be objectively measured, like expected loss of lives. Nevertheless, motives and social relationships do play a role in the moral decisions we make, and cannot be banned from our decision making process. Imagine that you throw a brick down from a building, with the result that it hits somebody on the head. Although the consequence is the same, it seems to make a moral difference whether, for example, you were ignorant of the possibility of this outcome and just wanted to see something drop; or deliberately threw the brick to hit a person. It is similarly hard to deny that it is worse to deny a friend some help in difficult times, than a total stranger. Indeed, decisions are much more straightforward when the valuables are obvious (expected) consequences of the decision, and all concerned parties always count equally. But unfortunately, this does not concur with our moral beliefs, which, as explained, are an important reference for the credibility of moral theory. This complicatedness of moral value makes calculating the best decision much more difficult and probably ambiguous than in situations where what is valuable is clear and easily knowable. It probably mitigates the practical use of decision theory, which, as explained, is one of the theory's greatest assets. However, this argument questions only the correctness and objectivity of the valuables used in decision theory. It is not directly aimed at decision theory (which is designed to be simply a rational procedure to arrive at the correct decision by using given value statements). Nevertheless, as the usefulness of decision theory in moral decision-making depends on the usefulness of moral value in this process, it does affect the theory. Thus, although this critique leaves decision theory itself

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<sup>&</sup>lt;sup>30</sup> Some people state that keeping promises is an unconditional duty and therefore incommensurable with any other valuables (just like many people feel about killing innocent people). However, most people agree that breaking promises can be compared with- and weighed against other things of value. For example, when you break your promise to be on time at a lunch meeting, because you helped an old lady cross the street.

standing, it does make it lose some of its determinacy when it comes to complex moral decisions. (Hansson, 2007, p.146; Hansson, in Lewens, 2007, p.27, 30; Rachels, 2007, 103-108; Timmons, 2002, p.131-136 147-149)

Even when decision theory cannot be as absolute as it claims, it still seems to be the only serious option for dealing with risk situations; or is it? A third problem for decision theory has to do with the way in which people deal with risk. The Swedish philosopher Sven Ove Hansson explains the basis of this problem in the following way:

"In EU (Expected Utility), an option is evaluated according to the utility that each outcome has irrespectively of what the other possible outcomes are. However, these are not the only values that may influence decision-makers. A decision-maker may also be influenced by a wish to avoid uncertainty, by a wish to gamble or by other wishes that are related to expectations or to the relations between the actual outcome and other possible outcomes, rather than to the actual outcomes as such." (Hansson, 2005, p.45)

What Hansson addresses is that expected utility calculation does not take into account the fact that people attach value to taking risks. In the first paragraph of this chapter it was explained that risk has to do with the combination of uncertainty and negative events. Although these two components basically create the concept of risk, its definition is more encompassing than the simple fusion of these two notions. Risk (in this definition) is more than the chance that a certain negative event will occur. Using Hansson's words again: "Risks are taken, run or imposed". (Hansson, in Lewens, 2007, p.27) People attach a certain value to risk that differs from the simple multiplication of the chance and the initial value of the event in question. Consider the following example:

I am at home with my baby sister and I am listening to music. I would like to turn the volume up, but there is a chance that this will alarm my baby sister and she will start to cry. Suppose that the value I assign to listening to louder music is +10, and that of making my baby sister cry -20. I estimate the chance that my baby sister will cry if I turn the volume up to be 25%. The value of not turning the music up is simply 0.

According to utility calculation, the expected value of turning up the volume is: (0.75 \* 10) + (0.25 \* (10 - 20)) = 7.5 - 2.5 = 5. As this is higher than the (expected) value of not turning up the music, expected utility calculation renders me to turn the volume up. Nevertheless, in reality, I would not do so, because of the risk that it would make my baby sister cry. According to decision theory this is irrational. However, if we accept the view that uncertainty has an impact on the value assigned to the event, this changes. In a determined setting (when the outcome is a fact) I assign a value of -20 to making my baby sister cry, and

+10 to listening to loud music. But, when what will happen becomes uncertain/out of my direct control, these values, and the balance between them, change for me. In this case, although I know that the chance that my sister will not cry is higher than the chance that she will, this amount of uncertainty about how my sister will react makes me value the option that she will not cry higher. It therefore still is rational to prevent this from happening and choose not to turn the volume up. This idea is not a farfetched attempt to refute decision theory. In fact, it seems to be a very ordinary way of dealing with uncertainty. Here is another (very basic) example:

You want a cookie. But you want to have ice cream twice as much (cookie = 10, ice cream = 20). Suppose that it turns out that you can choose between getting a cookie for sure, and a 50% chance of getting ice cream, or nothing.

According to decision theory you should be indifferent regarding this choice (0.5 \* 20 = 10). Even so, there is a good chance that you would prefer one of the options. A number of people would choose to have the cookie instead of running the risk of getting nothing, while others would prefer to take the risk.<sup>31</sup> It could again be suggested that this behaviour is irrational. But we can imagine that when we would be aware of people's dispositions, based on complex value systems, these choices would not look irrational at all; just very complex. This idea strongly suggests that values of options can change by the impact of uncertainty. This change in value is impossible to express in a framework that operates exclusively with value measures of definite outcomes. The 'expected' part (the chances) changes the utility (the value) of the different options and with that also the maximised outcome. This argument basically cancels out expected utility calculation. If values are influenced by the chances of their occurrence, simply applying expected utility maximisation on fixed values cannot be upheld. A way to deal with this difficulty is for decision theory to simply accept that it does not just operate with (moral) values, but is also influenced by them. By doing so it can adapt to the view that the value of risks cannot be found by only using expected utility calculation. Consequently, the theory of course loses its advantage of having such a definite and clear method of arriving at decisions.<sup>32</sup> But it also leads to the conclusion that decision theory shouldn't be seen as being independent from moral theory, which opens up new possibilities

<sup>&</sup>lt;sup>31</sup> That people really do choose such seemingly irrational options is proven by "Ellsberg's Paradox", named after the man who came to this conclusion after experiments in which he gave people similar uncertainty dependent options. (Hansson, 2005, p.51)

<sup>&</sup>lt;sup>32</sup> This doesn't mean that utility calculation isn't useful. It only admits that utility calculation cannot (or at least not always) stand on its own.

to define methods of arriving at decisions in morally problematic risk situations. (Hansson, 2007, p.146; Hansson, in Lewens, 2007, p.27, 30-32; Hansson, 2002, p.14-15)

This progressive vision, which combines the strengths of decision- and moral theory, thereby increasing the practical usefulness of both disciplines, is the starting point of Hansson's theory of "hypothetical retrospection". The next paragraph will explain why and how this moral theory can deal with uncertainty, as well as with the problems discussed in this paragraph (namely, the value of risk, the complexity of moral values, and non-aggregative moral valuables).

# 3.6 Hypothetical Retrospection

Hypothetical retrospection is an argumentation framework that is designed to cope with risks in real situations. Just like decision theory it has the benefit of being able to arrive at decisions in uncertain situations, but unlike decision theory it is not bound to only rules of logic and maximization. It is able to incorporate multiple motivations for decisions, including complex and delicate arguments for risk-prone or -averse behavior and special obligations to specific persons in real situations, which makes it more realistic and consistent with (strong) moral intuitions people possess. Before explaining how this method works and why, it should be clear that hypothetical retrospection is not a proposal for a complete moral theory. Similar to decision theory it is a theory of right conduct, which means that its goal is to discover decision procedures for moral action. Next to this a moral theory should possess a theory of value, which gives an account of the nature of (moral) value. (Hansson, 2007, p.152; Timmons, 2002, p.11)

H.r. is a systemized account of a common type of argument often used in defending decisions that influence future outcomes. Hansson calls this the "foresight argument". The idea is simple: Among other things, we often base our actions on considerations about the future consequences of these actions. This is of course also the main component of expected utility calculation. However, Hansson aims at a broader vision on this; not limited by straightforward calculations of utility, but able to incorporate multiple moral considerations into it. According to him, the useful component for moral reflection is the insight that we can predict how we would evaluate our actions at some later point in time. In indeterministic cases (situations of uncertainty) we can, at different points in time, define different pathways of future developments. The thought is that no matter which pathway would be realized, hindsight evaluation of it should never lead to the conclusion that the choice that was made was morally wrong. This sort of idea has often been expressed as regret-avoiding decision making.

Hansson stresses however, that regret is not a correct denominator here. The mental state of regret is usually linked to the outcome of a situation. But even if one regrets the outcome of a situation one could still feel that the right choice has been made. For example, a cop might regret to have killed a person, while nevertheless feeling that he did the right thing by shooting this person in self defense. Predicted regret therefore is not a correct decision guide. What we should do is mentally construct the different pathways that can influence our decisions and picture ourselves evaluating these choices afterwards with the knowledge we had at that moment. This method forces us to aim at choices that are morally acceptable whatever happens. Mentally going forwards in time to different end-states, and than backwards again to perceive a future evaluation of the decision, forces us to incorporate seriousness and concreteness into the process of moral reflection. Hannson expresses it like this: "The purpose of hypothetical retrospection is to make moral evaluations more foresightful by simulating these effects of afterthought." (Hansson, 2007, p.151-152) Hypothetical retrospection can be seen as a step from usually very abstract and deterministic moral theory to a more concrete and practically useful system of moral reasoning. This enables us to come to realistic assessments of utility, which aligns with the complexity of moral reasoning.<sup>33</sup> (Hansson, 2007, p.147-153)

But although h.r. provides us with a practical and quite systematic procedure to come to moral decisions, it will only be as convincing as the account that can be given of all the moral arguments that will be used within this framework. In other words, the strength of the theory also depends on the underlying theory of value. But what path should be taken here? Paragraph 3.3 and 3.4 already made clear that most influential contemporary theories of moral value seem to be unsuitable to deal with uncertainty and risk. On the whole, it often seems that morally difficult situations in reality are too complex and diverse to be unambiguously connected to strict moral principles and accompanying rules of conduct. Therefore, perhaps a different approach should be taken. So far, only moral theories that directly address what is the right thing to do have been regarded. Virtue ethics, which dates back to ancient Greek philosophy but is sort of the outcast in modern moral philosophy, focuses on a different question; namely, what traits of character make someone a good person? This agent-centered instead of act-centered perspective might make virtue ethics well equipped to account for the complete spectrum of moral motivations and ideas that are part of the decision making system of hypothetical retrospection (and reality). The basic idea of virtue ethics is that the

<sup>&</sup>lt;sup>33</sup> An example of how this might go is presented in the next paragraph.

possession of certain traits of character (virtues) make one a good (virtuous) person who can, and will, do the morally right thing. Through ethical deliberation, which is guided by reason, one can learn about the virtues and therefore about the way one ought to act. Yet, only through practice and experience in reality can one acquire these character traits and be able to truly act right/be virtuous. Virtues are traits of character, which means they are more than the skills and motivation to follow a moral principle or rule. Virtues are part of what a person feels, thinks and wants. Courage, generosity, loyalty and honesty are examples of virtues that are often defined. The complete virtuous agent is aware of all morally relevant features of the circumstances and acts in a way that expresses all the relevant virtues. According to Aristotle<sup>34</sup> the virtues are those character traits that serve the highest end: 'eudemonia', which is often translated as happiness, flourishing or wellbeing. (Aristotle, 1103 b; Hursthouse, in Crisp, 1996, p.12; Kamtekar, 2004, p.480; Timmons, 2002, p.212-223)

Virtue ethics has a practical vision on dealing with ethics and therefore seems to be a perfect fit for the method of hypothetical retrospection. By describing morally desirable character traits instead of moral principles virtue ethics gains a certain freedom and flexibility to comprehend multiple moral motivations and principles. Another benefit of focusing on traits of character instead of on fixed abstract principles is that it can address particular practices. It is possible to define virtues and their specific meaning and spectrum to fit different roles. Professional rescuers, like fire fighters, might need to develop different traits, or a different balance between traits, than other people. Their regular and teamed confrontations with emergencies probably call for specific standards of loyalty, self-control, persistence, courage, benevolence, assertiveness, reliability and other qualities that might be defined as- or connected with certain virtues.<sup>35</sup> Opponents of virtue ethics often put forward that the theory does not give concrete rules to guide moral actions. They claim that describing traits of character that need to be developed to act right is too vague. Although Aristotle would probably agree with this criticism and reply that ethics is not a theoretical but practical science, which means that the only way to learn how to act 'right' is by gaining experience; when virtues are clearly defined and connected to a systematic critical decision procedure, like hypothetical retrospection, this criticism doesn't have to be very destructive. It should be possible to come up with a balanced virtue system that is satisfyingly action guiding while still leaving room to cover all the facets of moral reality. However, as virtue ethics has only

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<sup>&</sup>lt;sup>34</sup> Aristotle is generally seen as the father of virtue ethics, although other ancient thinkers like Plato and Socrates embraced similar views on ethics (Rachels 2007, 173).

<sup>&</sup>lt;sup>35</sup> It should strike the reader that the virtues mentioned here can be connected to the distinct features of fire fighting-/rescue-ethics that were defined in paragraph 2.6.

recently (re)emerged as a serious alternative to act-centred moral theories it needs further development before it is truly up to this challenge (both in general and in order to fit the specific practice under discussion here). It nevertheless seems very promising as a moral theory of value to ground the decision-making method of hypothetical retrospection. (Timmons, 2002, p.233-241)

Although it still needs attention, especially when it comes to the underlying theory of value, it seems safe to say that hypothetical retrospection has great practical advantages over other moral decision making theories, including even expected utility calculation; especially when it comes to situations of risk and uncertainty. Using the moral problem described in paragraph 2.5, the next paragraph gives an example of how hypothetical retrospection can be used in practice to come to a well reflected decision.

## 3.7 H.R. in Fire Fighting Rescue Situations

When fire fighters encounter dangerous situations where lives are at risk hypothetical retrospection offers an insightful method to allow for on-sight critical reflection and making choices. To show how this could go the gas explosion emergency described in paragraph 2.5 will be used as an example. In this case there were three fire fighters working to get two victims free from debris inside a half collapsed building. When the officer of duty (OvD) arrived at this scene and established that there was a big chance of a wall collapse with a big chance of disastrous consequences it was up to him to make a decision regarding this risk-full situation. Using hypothetical retrospection the OvD would ask himself questions of the following format: "If I decide \_\_\_ and \_\_\_ is what happens, how would I then evaluate the choice I made?" The gaps in this question should be filled in with decisions and outcomes that can be expected to make a moral difference. This should bring the decision maker as close as possible to finding a decision alternative that is as defensible as possible in all imaginable future situations. The OvD might make the following assessments: "What if I decide to retreat the three rescuers / let the three rescuers continue / sent more rescuers to help / leave the choice up to themselves, and the wall collapses / the wall stays up?" He needs to continue this mode of reasoning about the outcomes and imagine the consequences for the involved: "If the wall collapses all people on the site will be buried, creating a large chance of death and injury. If the wall stays up the victims could be saved, but this might depend on the timing." For all of these combinations of choices and outcomes he then has to assess if he would evaluate the made decision to be morally defensible. As both the chances of adverse

events occurring and the adversity of these events are high, these assessments seem to be dominated by risk. As explained, the weight of these risks in the balance of moral value depends on numerous elements of the situation, including promises, relations and (professional/virtuous) outlooks on fire fighter safety and victim rescue. After these assessments the OvD should be able to make a choice that is as defensible as possible considering the current knowledge and experience he possesses. Making this choice will never be easy, but hypothetical retrospection offers a decision procedure that ensures a realistic and elaborate assessment of risks and values that are part of the problem.

Within the Dutch fire fighting practice research on decision-making has been focused on the development of decision theory, rather than ethics. Due to the growing understanding that people can- and do not decide fully rational, like normative decision theory assumes, research and forthcoming methods of decision-making in the fire fighting profession have shifted its focus from normative- to descriptive decision theory. The goal is to structure decision-making in a way that enables fire fighters to make optimal choices within the boundaries of what is realistically possible. (Helsloot & van Duin, 1999, p.57-59, 67)

The theory of hypothetical retrospection aligns with this development, as it is designed to account for the fact that there is more to decision making than forms of expected utility calculation. This philosophy therefore seems to be integrate-able with current views upheld in the fire fighting practice. Opportunities for future uses and development of h.r. in the fire fighting practice look promising, as the theory is able to bring decision theory and ethics closer together. Therefore, the research question [How can moral theory be of use in rescue situations where fire fighters have to make risk-subjected decisions concerning their own safety and the safety of human victims?] can be answered by suggesting further development and research on the theory of hypothetical retrospection and its underlying ideas.

#### 4. Conclusion

#### 4.1 Fire Fighting Ethics

Fire fighting is a relatively unexplored practice in Ethics. Introductory investigations of the moral problems of triage, unwilled rescues, harm causing, and the balance between fire fighter- and victim-safety show that there are multiple topics in fire fighting that are interesting from an ethical viewpoint. Moreover, the existence of distinctive accounts of morally important features, like urgency, danger, uncertainty, and a certain dependence on hierarchy creates an incentive for further ethical research in emergency response practices (including, of course, fire fighting) and suggests a ground for the development of emergency response ethics as a specific field of applied ethics.

#### 4.2 Risk, Ethics and Rescue Situations

In order to save human victims fire fighters often put their own safety on the line. Uncertainty about the future of a situation makes it difficult to decide for fire fighters how they should balance their safety against the safety of victims. Both regular contemporary moral theories and decision theory, which is the standard method of dealing with such problems in many practices, are unable to cope with this risk-dilemma; either because they do not have the means to take account of such incompletely determined situations, or because they cannot deal with further complexities of realistic moral argumentation. However, Sven Ove Hansson's recently developed theory of hypothetical retrospection is able to overcome these problems. This theory's practical systematic approach to moral decision making promises to be useful in rescue situations where fire fighters have to make risk-subjected decisions concerning their own safety and the safety of human victims.

#### References

Alexander, Larry; Moore, Michael. "Deontological Ethics." *Stanford Encyclopedia of Philosophy*. <a href="http://plato.stanford.edu">http://plato.stanford.edu</a>, 2007.

Aristotle. Ethica Nicomachea. Groningen: Historische Uitgeverij, 1999.

Bitterroot Fire Institute. "Self Reliance." <a href="www.fireinstmt.org/Self-Reliance.htm">www.fireinstmt.org/Self-Reliance.htm</a>; accessed September 2009.

Brouwer, Ed. "The Trainer's Corner: Understanding Structural Triage." <a href="https://www.firefightingincanada.com/index.php?option=com\_content&task=view&id=1578&Itemid=210">www.firefightingincanada.com/index.php?option=com\_content&task=view&id=1578&Itemid=210</a>; accessed September 2009.

CTV News. "Despite Fire, Some in Big Sur Refuse to Evacuate."

www.ctv.ca/servlet/ArticleNews/story/CTVNews/20080703/wildfire\_cali\_080703?s\_name=

&no\_adss; accessed September 2009.

Dworkin, Ronald. Life's Dominion. New York: Vintage Books, 1994.

Emanuel, Ezekiel J; Wertheimer, Alan. "Who Should Get Influenza Vaccine When Not All Can?" *Science*, May 2006, 854-855.

Federal Fire and Aviation Safety Team. "Wildland Urban Interface Hazards" <a href="https://www.firerescuel.com/firefighter-safety/tips/310628-Wildland-urban-interface-hazards/">www.firerescuel.com/firefighter-safety/tips/310628-Wildland-urban-interface-hazards/</a>; accessed September 2009.

Firehouse.com. "Maryland Firefighters Flustered as Customers Refuse to leave" www.firehouse.com/node/44084; accessed September 2009.

Gibson, Kevin. "Contrasting Role Morality and Professional Morality: Implications for Practice." *Journal of Applied Philosophy*, 2003, 17-29.

Hansson, Sven Ove. "Philosophical Perspectives on Risk." *Research in Ethics and Engineering (Conference)*, 2002, 1-32.

Hansson, Sven Ove. "Decision Theory, a Brief Introduction." *Royal Institute of Technology* (KTH) Stockholm, 2005.

Hansson, Sven Ove. "Hypothetical Retrospection." *Ethical Theory and Moral Practice*, 2007, 145-157.

Hansson, Sven Ove. Risk and Ethics. In *Risk: Philosophical Perspectives*, ed. Tim Lewens, 21-35. Oxon: Routledge, 2007.

Helsloot, Ira; van Duin, Menno. Veiligheidsrisico's bij Repressief Optreden. Nibra, 1999.

Helsloot, Ira; Ruitenberg, A.G.W; Jong, W. *Crisis 2003*. COT Instituut voor Veiligheids- en Crisismanagement. Den Haag: Boom Juridische uitgevers, 2005.

Hoven, van den, Mariëtte. A Claim for Reasonable Morality, Commonsense Morality in the Debate on the Limits of Morality. Utrecht: Zeno Institute for Philosophy, 2006.

Hursthouse, Rosalind. Normative Virtue Ethics. In *How Should One Live?*, ed. Roger Crisp, 1-19. New York: Oxford University Press, 1996.

Inspectie Openbare Orde en Veiligheid. *Veiligheidsbewustzijn Bij Brandweerpersoneel*. Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2004.

Kymlicka, Will. Contemporary Political Philosophy. Oxford: University Press, 2002.

McIntyre, Alison. "Doctrine of Double Effect." *Stanford Encyclopedia of Philosophy*. http://plato.stanford.edu, 2009.

McMahan, Jeff. "Killing, Letting Die, and Withdrawing Aid." Ethics, 1993, 250-279.

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. "Brandweerwet 1985" <a href="www.wetten.overheid.nl/BWBR0003764/geldigheidsdatum\_19-01-2010">www.wetten.overheid.nl/BWBR0003764/geldigheidsdatum\_19-01-2010</a> accessed September 2009.

Molenaar, Jaap; Jonkers, Michel; Vleems, Hermien; van der Mheen, Ton; van Dooren, Hans; Brands, Will; Voorthuis, Ronald. *Werkexemplaar Leidraad Oefenen*. Nibra. Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2006.

Naess, Anne-Cathrine; Foerde, Reidun; Steen, Petter Andreas. "Patient Autonomy in Emergency Medicine." *Medicine, Health Care and Philosophy.* 2001, 71-77.

O'Neill, Onora. "Some Limits of Informed Consent." *Journal of Medical Ethics*, 2003, 29, 4-7.

Rachels, James. The Elements of Moral Philosophy. New York: McGraw-Hill, 2007.

Rosmuller, Nils.

"Dodelijke Brandweerongevallen in Nederland (1946-2005): Classificatie naar Tijdsdruk en Doel van de Inzet." *Tijdschrift voor Veiligheid*, 2006, 19-33.

Sandin, Per. "Firefighting Ethics: Principlism for Burning Issues", *Ethical Perspectives*, 2009, 225-251.

Sign On San Diego. "SoCal Wildfires Force Evacuations From Malibu to Mexico." <a href="https://www.signonsandiego.com/news/state/20071022-1337-wst-californiawildfires.html">www.signonsandiego.com/news/state/20071022-1337-wst-californiawildfires.html</a>; accessed September 2009.

Sjöberg, Lennart. "Factors in Risk Perception." *Risk Analysis*, 2000, 1-11.

Slovic, Paul; Weber, Elke U. "Perception of Risk Posed by Extreme Events." *Risk Management Strategies in an Uncertain World (Conference)*, New York, 2002.

Sorell, Tom. "Morality and Emergency." *Proceedings of the Aristotelian Society, New Series*, 2003, 21-37.

Thompson, Jamie. "FDNY Lt. says fire service needs culture of 'extinguishment not safety'." <a href="https://www.firerescue1.com/firefighter-safety/articles/483861-FDNY-Lt-says-fire-service-needs-culture-of-extinguishment-not-safety/">www.firerescue1.com/firefighter-safety/articles/483861-FDNY-Lt-says-fire-service-needs-culture-of-extinguishment-not-safety/</a> accessed September 2009.

Timmons, Mark. Moral Theory. Maryland: Rowman & Littlefield Publishers, 2002.

Verweij, Marcel. "Adresing Ethical Issues in Pandemic Influenza Planning." *Draft Paper for Working Group WHO*, 2007.

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#### Appendix A: Summary of Semi-Structured Interview with Paul Jetten

Deze vragen zijn bedoeld om inzicht te krijgen in de morele aspecten van de operationele repressieve functie van de brandweer.

\_\_\_\_\_\_

#### [ Brandweerman is een risicovol beroep ]

# Hoe wordt hier mee omgegaan binnen de brandweer? Hoe kijkt men bijvoorbeeld aan tegen zorg voor de eigen veiligheid?

"Eigen veiligheid is erg belangrijk. In de opleiding en in de praktijk wordt er veel aandacht aan besteed. De moeilijkheid is vooral om het concept te vertalen naar de praktijk/handelingen.

Omdat bijna alle uitrukkingen routineklussen zijn is het erg moeilijk om alert te blijven op de eigen veiligheid in de schaarse situaties wanneer het echt nodig is. Een 'normale' situatie kan ineens omslaan naar een extreem gevaarlijke situatie. Dat is vaak erg lastig in te schatten. Er is wel een cultuur waarin eigen veiligheid voorop wordt gesteld, maar soms wordt dat in situaties toch wel eens vergeten."

[ Ik stel me voor dat voor het redden van (mensen)levens grotere risico's worden genomen dan voor het redden van materiele goederen ]

# Klopt dat beeld?

"Ja. Maar toch word je daar weer extra aan herinnerd na grote ongevallen. Zoals onlangs in 'de Punt' waar 3 collega's zijn omgekomen tijdens het redden van boten. Het was zeker dat er niemand in de loods zat en toch ging men naar binnen.

In Amsterdam heb je de historische binnenstad. Neem je dan extra risico voor het redden van een historisch pand? Ik denk het niet, maar je doet toch wel net iets extra je best.

Voor mensen neem je inderdaad wel iets meer risico. Bij woonhuizen weet je vaak niet of er nog mensen binnen zijn. Je gaat dan toch meestal naar binnen en doet er alles aan om uit te kunnen sluiten dat er mensen binnen zijn.

Het wordt heel lastig als het gaat om gebouwen die niet bedoeld zijn als woning, maar waar wel mensen binnen kunnen zijn. Bijvoorbeeld loodsen, tuinhuisjes, kantoorpanden. In stedelijk gebied wordt dat steeds lastiger, omdat gebouwen die in beginsel geen woonfunctie hebben steeds vaker wel zo gebruikt worden.

En omdat we vaak met heel weinig informatie, die ook vaak onzeker is, heel grote beslissingen moeten nemen is dit heel lastig.

Grote gevaren voor brandweermannen zijn instorting en verdwaling. Je probeert te trainen in het signaleren van kenmerken die wijzen op bijvoorbeeld instorting. Je geeft ook veel hulpapparatuur mee om bijvoorbeeld explosiegevaar/gassen te kunnen meten. Maar dat kan zich zo snel ontwikkelen dat je al snel te laat bent.

Dus daarin kun je heel strict zijn en zeggen: We gaan niet meer naar binnen. We redden geen mensen meer. Of je neemt toch dat stapje extra en gaat kijken of je nog iets kunt doen. Ik ben me wel bewust van wat er kan gebeuren. Maar ja, tot hoever ga je en in hoeverre heb je invloed op wat er kan gebeuren? Dat is nog een andere moeilijke vraag.

Er zijn veel verhalen over wanneer het nog net allemaal goed is gegaan. Dat lijkt vaker door geluk dan wijsheid te komen.

Voor een kanarie bijvoorbeeld neem je minder risico dan voor een persoon. Toch moet je die vaak redden, omdat mensen die om dat dier geven anders zelf naar binnen gaan en gevaar lopen.

Veel ongelukken gebeuren trouwens ook juist bijvoorbeeld in de nablusfase, wanneer iedereen denkt dat het gevaar voorbij is en als het ware achterover leunt. Dan moet ik juist extra alert zijn. En ongelukken gebeuren dus vaak wanneer we extra hectisch naar binnen gaan. Dat doen we als we weten dat er nog iemand binnen zit. Maar dat blijft gewoon lastig, doordat er veel onzekerheden zijn en de situatie snel kan veranderen. Het kan ineens blijken dat een gebouw vol ligt met explosief- of extreem brandbaar materiaal. Je moet daarom mensen hebben die erg snel kunnen schakelen. Die iets zien en daarop snel kunnen handelen. Daar selecteer je bevelvoerders op."

[ Ik stel me voor dat bij situaties waar mensen in gevaar zijn de prioriteit van de brandweer is om zoveel mogelijk levens te redden ]

### Klopt dat beeld?

[ Ik stel me voor dat het bij gevaarlijke omstandigheden waar levens op het spel staan lastig kan zijn om te bepalen of reddingsoperaties al dan niet in- of doorgezet moeten worden of in ieder geval om te bepalen hoeveel risico genomen moet worden. ]

# Herkent u dit probleem?

# Hoe beslist een bevelvoerder/operationeel leidinggevende in risicovolle situaties waar levens op het spel staan over hoe er moet worden gehandeld?

(Staat de veiligheid van de brandweermannen bijvoorbeeld altijd voorop? Of denkt men eerst aan het redden van de slachtoffers? Of bestaat er een gulden middenweg? Of komt het in de praktijk eigenlijk niet voor / werkt het heel anders?)

"Een theorie waar de brandweer haar beslismethoden naar richt is die van 'Klein'. Die zegt dat in situaties waarin snelle beslissingen moeten worden genomen je handelt naar ervaring. Ik merk aan mezelf dat dat klopt. Je kunt sneller beslissen als je uit ervaring zaken herkent. Waar je geen ervaring hebt moet je terugvallen op procedures. Dat gaat vaak star/moeilijker."

## Zijn er richtlijnen voor omgang met dit soort situaties?

(Bijvoorbeeld: "Bij groot gevaar voor instorting mag het gebouw niet binnengetreden worden." Hiermee bedoel ik ook wettelijke regels, trainingen, algemeen aanvaarde normen binnen de kazerne, etc.)

"We hebben veel procedures. Bijvoorbeeld over hoe je omgaat met complexe gebouwen of wat je doet bij vermissing van eigen mensen."

\_\_\_\_\_\_

[ Ik stel me voor dat het voorkomt dat er keuzes moeten worden gemaakt over prioriteit van te redden slachtoffers. Bijvoorbeeld omdat er zich mensen bevinden in verschillende delen van een gebouw ]

# Hoe worden dit soort keuzes gemaakt?

(Hangt dit bijvoorbeeld af van factoren als: Welke slachtoffers kunnen het snelst worden gered? Welke slachtoffers bevinden zich het meest direct in gevaar? Welke slachtoffers hebben de minste zelf-red-kansen?)

# Kan het hierbij ook een rol spelen of het gaat om bijvoorbeeld kinderen of ouderen of wordt er bijvoorbeeld voorrang gegeven aan collega's die in gevaar zijn gekomen?

"Als je eigen mensen gered moeten worden heeft dat altijd prioriteit. Maar situaties waarin je moet kiezen tussen slachtoffers of eigen mensen redden zijn wel heel extreem. Dat komt eigenlijk nooit voor.

Ik ben nog nooit echt in een situatie gekomen waarin je zo duidelijk moet kiezen tussen bijvoorbeeld het redden van een kind, volwassene of bejaarde. Voor een kind wil je in principe wel extra moeite doen. Het is jong, onschuldig, brandweermensen hebben vaak zelf kinderen en vinden dat belangrijk. Het komt heel dichtbij. Maar dat heeft dan meer te maken met de impact die het heeft. Het is niet zo dat je kiest van: daar liggen kinderen, daar liggen volwassenen, we gaan eerst voor de kinderen. Ik zou wel voor de minst zelfredzame gaan. Die keuze maak je toch wel. Dat staat niet geschreven, maar toch zou je dat doen. Ook in bouwregelingen zie je dat zelfredzaamheid een criterium is voor de hoeveelheid maatregelen die je neemt om een gebouw veilig te maken."

#### Zo ja, wat zijn de beweegredenen hiervoor?

(Bijvoorbeeld dat kinderen zichzelf niet kunnen redden, makkelijker te redden zijn, of nog een heel leven voor zich hebben. En bijvoorbeeld dat je een band hebt met collega's, of een professionele verplichting tegenover elkaar, of dat reddingswerkers belangrijk zijn voor vervolg van het reddingswerk direct en/of in de toekomst)

\_\_\_\_\_\_

Komt het voor dat mensen niet willen luisteren naar een opdracht van de brandweer? "Ja, bij ontruimingen bijvoorbeeld."

#### Hoe gaat de brandweer daar mee om?

"Ik weet niet of je formeel bevoegd bent om mensen mee te sleuren. Maar in sommige gevallen beseffen mensen nog niet dat ze in gevaar zijn, omdat ze het nog niet direct zien of voelen. Het gebeurt niet heel vaak, maar soms gaan mensen ook tegen beter weten in terug om nog iets te pakken. Huisdieren bijvoorbeeld. Je sommeert ze dan wel om te stoppen. Bijvoorbeeld in een hotel worden mensen er wel allemaal uitgehaald. Ik ken geen situaties waarin mensen bij kop en kont naar buiten gesleurd moesten worden."

Maakt het hierbij verschil of de veiligheid van de 'weigeraars' in gevaar is?

## Kan dit de taak van de brandweer belemmeren?

\_\_\_\_\_\_

[ De brandweer rukt vaak met spoed uit. Dit brengt risico's met zich mee voor andere verkeersdeelnemers ]

#### Hoe denkt u daar over?

"Daar gebeuren inderdaad wel ongelukken mee. We hebben een branch-richtlijn die een indicatie geeft over hoe je met 'prior-1-meldingen' moet rijden. Geen voorrang nemen, maar krijgen, stapvoets over kruisingen, zoveel kilometer te hard rijden, langzamer rijden bij files. Als brandweerchauffeur heb je ook een diploma nodig. Aan de preventieve kant wordt er dus stevig op gehamerd hoe je hier mee om moet gaan. Ik ervaar dit prior-1-rijden ook als het meest risicovolle deel van het werk. Er zijn ook mensen veroordeeld voor het niet houden aan de richtlijn. Vaak krijgen ze voorwaardelijke straffen. Een black-box in de wagens registreert ook precies wat er gebeurd is."

# Komen er (andere) situaties voor waarin de brandweer beslissingen neemt die mensen in gevaar brengen?

(Dit is waarschijnlijk ver gezocht, maar hierbij denk ik bijvoorbeeld aan een situatie waarin een zwaargewond persoon uit een autowrak moet worden gezaagd, maar waarbij dit niet kan zonder dat een andere beknelde inzittende gewond raakt.)

"Het komt wel veel voor dat brandweer-teams elkaar onbewust in gevaar brengen. Bijvoorbeeld wanneer bepaalde handelingen verricht worden aan de achterkant van het gebouw die effect hebben op de voorkant en hier geen duidelijke communicatie over is geweest.

Maar situaties waarin we bewust dingen doen die anderen in gevaar brengen, dat zou ik zo niet weten."

### Zo ja, hoe worden dit soort beslissingen genomen?

\_\_\_\_\_\_

# Kent u andere voorbeelden van moeilijke dilemma's die in de repressieve functie van de brandweer voorkomen?

(Een mogelijk voorbeeld zou kunnen zijn het wel of niet redden van een brandstichter die door zijn eigen handelen in gevaar is gebracht)

"We redden iedereen. Elk mens is een mens. Vaak weet je het natuurlijk sowieso niet en heb je geen tijd om er over na te denken."

## Kent u (andere) praktijkvoorbeelden van situaties waarover het in dit gesprek ging?

"Na situaties waarbij een 'eigen-veiligheidsregel' is overtreden, maar waar alles toch goed blijkt te zijn gegaan worden mensen wel op hun vingers getikt, zo van: Het ging goed, maar besef wel dat dit niet de bedoeling is. Als het fout gaat is zegt men vaak: "hoe had je dat nou kunnen doen".

Als Officier van Dienst let je meer op de eigen veiligheid van je mensen dan dat ze dat zelf doen. De brandwachten zijn vooral bezig met denken aan de veiligheid/het redden van de slachtoffers of het blussen van de brand.

In bepaalde situaties worden middelen die bestaan voor eigen veiligheid als onhandig ervaren en heeft men dan de neiging om bijvoorbeeld toch veiligheidsbril of handschoenen uit te doen.

Eigen veiligheid is niet direct ons doel. Dat is schade beperken en mensen redden. maar dat moet niet ten koste gaan van onszelf. Dus eigen veiligheid zit meer verweven in het patroon van optreden. Je kunt natuurlijk ook alleen iemand redden als je er zelf niet bij omkomt. Eigenlijk is dat inherent aan het reddingswerk."

Kent u andere mensen die ervaring of verstand hebben van dit soort morele kwesties in de (repressieve) brandweerpraktijk?

## Appendix B: Summary of Semi-Structured Interview with Rob Mom

Deze vragen zijn bedoeld om inzicht te krijgen in de morele aspecten van de operationele repressieve functie van de brandweer.

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#### [ Brandweerman is een risicovol beroep ]

brandbestrijding of mensen redden?

# Hoe wordt hier mee omgegaan binnen de brandweer? Hoe kijkt men bijvoorbeeld aan tegen zorg voor de eigen veiligheid?

"Heel wat jaren terug zou het wel zo geweest kunnen zijn dat het werk van de brandweer werd gezien als heldhaftig werk waar risico's gewoon bij horen. Dat is de laatste jaren wat aan het veranderen. Door een aantal dodelijke ongevallen is de beleving van het risicovol zijn aan het verschuiven. Dat begint vaak hogerop, bij beleid, en later dringt het door naar de werkvloer waar uiteindelijk de echte brandweermannen en -vrouwen rondlopen. Tegenwoordig durven we te zeggen: Er zitten risico's aan het werk, maar het is niet de bedoeling dat wij onnodig dood gaan. Een voorbeeld van hoe we het niet willen is het ongeluk bij 'de Punt'. Dat heeft geleid tot aanscherping van dit idee. Het lijkt erop dat er een trend zit naar vaker en sneller terugtrekken en omschakelen naar een aanpak die in ieder geval veilig is. Dat botst wel een beetje met het brandweer-uitgangspunt dat de taak gewoon is om vuur te blussen. Er komt een grens te liggen ergens tussen wat je mogelijk als organisatie/leidinggevende graag wilt, niks gevaarlijks doen, en wat brandweermensen eigenlijk toch willen blijven doen, blussen, want dat is uiteindelijk waarvoor je brandweerman bent geworden. Het kantelpunt is precies waar de discussie zich bevindt. Die discussie voeren we zowel intern als landelijk. Maar ook al willen we het zo veilig mogelijk maken, het is bij dit werk onmogelijk dat er zich nooit ongevallen voordoen. Dat heeft het nou eenmaal in zich. En daar houden we toch rekening mee. Meestal gaat het om kleine verwondingen, zoals door de enkel gaan of lichte brandwonden. Helemaal op nul kan niet, maar als het gaat om dodelijke ongevallen begint het interessant te worden. Zoals het is gegaan in de Punt: 3 man dood voor het redden van materiele goederen. Dat willen we niet meer. Maar als het was gebeurd tijdens een poging om twee vermiste werknemers te vinden en te redden dan had het toch een andere lading gehad. Of dat wel acceptabel was geweest is nog maar de vraag, maar dat maakt wel in wezen het verschil: Ben je bezig met

De beleving van risico's is dus de laatste jaren toegenomen. Het is op de kaart gezet. En we zijn er druk mee bezig om ons corps risicobewuster te laten worden.

Nieuwe technieken die bedoeld zijn voor verbetering van eigen veiligheid kun je ook zien als mogelijkheden om verder te gaan of meer te doen dan voorheen kon. Winterbanden geven je bijvoorbeeld meer grip in winterweer. Dat is veiliger als je hetzelfde blijft rijden als voorheen. Maar je kunt ook sneller rijden en dezelfde risico's nemen als voorheen.

Met hittebestendige apparatuur is dat hetzelfde. Maar als je dan verder een gebouw binnendringt, omdat dat kan, en het gaat mis; dan gaat het ook meteen goed mis. Of dat soort dingen in de praktijk ook echt vaak voorkomen? Het gebeurt in ieder geval wel eens. Maar als je kijkt naar de dodelijke ongevallen in Nederland, dan heeft dit er weinig mee te maken. Die ontstaan met name door het verkeerd inschatten van risico's en het maken van keuzes die wel of niet goed uitpakken."

[ Ik stel me voor dat voor het redden van (mensen)levens grotere risico's worden genomen dan voor het redden van materiele goederen ]

#### Klopt dat beeld?

[ Ik stel me voor dat bij situaties waar mensen in gevaar zijn de prioriteit van de brandweer is om zoveel mogelijk levens te redden ]

## Klopt dat beeld?

[ Ik stel me voor dat het bij gevaarlijke omstandigheden waar levens op het spel staan lastig kan zijn om te bepalen of reddingsoperaties al dan niet in- of doorgezet moeten worden of in ieder geval om te bepalen hoeveel risico genomen moet worden. ]

### Herkent u dit probleem?

# Hoe beslist een bevelvoerder/operationeel leidinggevende in risicovolle situaties waar levens op het spel staan over hoe er moet worden gehandeld?

(Staat de veiligheid van de brandweermannen bijvoorbeeld altijd voorop? Of denkt men eerst aan het redden van de slachtoffers? Of bestaat er een gulden middenweg? Of komt het in de praktijk eigenlijk niet voor / werkt het heel anders?)

"Dat is het lastige van het vak: De juiste risico-inschatting kunnen maken. Vaak weet je niet wat er aan de hand is. Wat voor gebouw het precies is, hoe het er binnen uit ziet. Je weet meer dingen niet dan wel. En toch moet je op basis van beschikbare informatie en ervaring komen tot een inschatting. Het risico is er dat die inschatting verkeerd is.

Over extreme situaties kun je achter je bureau lang nadenken en met een besluit komen, maar het is natuurlijk anders als je er op dat moment zelf voor staat.

Ik heb meegemaakt dat ambulancepersoneel aan het reanimeren was naast de derde rail van de metro, waar hoogspanning op staat en wat dus erg gevaarlijk is. Ik kwam daar aan, en eigenlijk moeten ze daar weg. Maar ze waren aan het reanimeren. Denk maar niet dat je ze dan kunt laten stoppen en op een afstandje kunt laten staan tot de omgeving veilig is. Toen stond ik toch met samengeknepen billen. Het enige wat ik nog heb kunnen doen was ze toch op enige afstand van die derde rail laten reanimeren. Daar kun je van alles van vinden, maar als je daar staat op dat moment... Het is makkelijk als je zeker weet wat er gaat gebeuren. Maar anders is het toch heel lastig. En als het fout gaat heb je de verkeerde keus gemaakt, achteraf."

#### Zijn er richtlijnen voor omgang met dit soort situaties?

(Bijvoorbeeld: "Bij groot gevaar voor instorting mag het gebouw niet binnengetreden worden." Hiermee bedoel ik ook wettelijke regels, trainingen, algemeen aanvaarde normen binnen de kazerne, etc.)

\_\_\_\_\_\_

[ Ik stel me voor dat het voorkomt dat er keuzes moeten worden gemaakt over prioriteit van te redden slachtoffers. Bijvoorbeeld omdat er zich mensen bevinden in verschillende delen van een gebouw ]

# Hoe worden dit soort keuzes gemaakt?

(Hangt dit bijvoorbeeld af van factoren als: Welke slachtoffers kunnen het snelst worden gered? Welke slachtoffers bevinden zich het meest direct in gevaar? Welke slachtoffers hebben de minste zelf-red-kansen?)

"Dit probleem speelt niet veel, maar het komt wel voor. Ik ken een situatie waar slachtoffers één voor één van een gebouw gered moesten worden met een laddervoertuig en waar de bestuurder van de electrische ladder besloot om de ladder naar een volgend slachtoffer te bewegen terwijl een ander persoon nog van de ladder naar beneden aan het klimmen was. Omdat dit voor die persoon gevaarlijk kan zijn is het bewegen van de ladder terwijl iemand zich erop bevindt tegen de regels. De chef ladder koos er voor de ladder toch te bewegen

omdat het andere slachtoffer totaal in paniek was en dreigde te springen. De afklimmende persoon kwam met een voet klem te zitten en raakte gewond. Was het dan een foute keuze? Tegelijk is er hoogstwaarschijnlijk een leven mee gered. Dat is heel erg moeilijk. Voor die echte voorrangskeuzes bestaan geen procedures."

Kan het hierbij ook een rol spelen of het gaat om bijvoorbeeld kinderen of ouderen of wordt er bijvoorbeeld voorrang gegeven aan collega's die in gevaar zijn gekomen?

#### Zo ja, wat zijn de beweegredenen hiervoor?

(Bijvoorbeeld dat kinderen zichzelf niet kunnen redden, makkelijker te redden zijn, of nog een heel leven voor zich hebben. En bijvoorbeeld dat je een band hebt met collega's, of een professionele verplichting tegenover elkaar, of dat reddingswerkers belangrijk zijn voor vervolg van het reddingswerk direct en/of in de toekomst)

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#### Komt het voor dat mensen niet willen luisteren naar een opdracht van de brandweer?

"Wat relatief vaak voorkomt is dat er branden zijn waar veel rook vrijkomt waardoor je in bepaalde gebieden dan eigenlijk niet moet komen, omdat dat in ieder geval ongezond is. Veel 'burgers' vinden dan blijkbaar dat ze daar toch kunnen staan. Ze denken dat ze heel goed in staat zijn om die risico's in te schatten en staan hoestend en proestend naar de brand te kijken. Vroeger ging de politie daar dan wel eens op af om die mensen weg te halen. Maar voor de eigen gezondheid zijn we daar van afgestapt en hebben we besloten dat er geen hulpverleners de rook in gaan. Als mensen naar herhaald waarschuwen toch blijven staan, dan moet dat maar. Wat nou als je zeker weet dat ze door die rook om gaan vallen? Dan zal de brandweer daar toch iets moeten gaan doen. Dat is in de praktijk nog niet voorgekomen, maar dat mensen niet willen luisteren met het risico dat ze later toch klachten krijgen wel. Het idee: "U moet uw huis uit" heb ik zelf één keer meegemaakt. Een man was via het dakraam op zijn zolder de brand bij de buren zelf aan het blussen en hij wilde daar niet weg. Toen hebben we inderdaad de deur open moeten breken en hem daar weg moeten halen. Ook als mensen naar drie keer waarschuwen niet gaan, maar later toch in de problemen komen gaan we daar op af. Dat spreekt voor zich, want dat is onze eerste taak.

Bij auto-ongelukken bijvoorbeeld doe je hetzelfde werk, met dezelfde inzet, of het nou iemand's eigen schuld is of juist helemaal niet. Je doet het alleen wel met een ander gevoel/emotie.

Bij het weghalen van de man op die zolder was redden een groot woord, want je haalt hem weg om te voorkomen dat je hem moet redden. Het was dan wel een echte, reeële dreiging. Wij hebben dan inderdaad niet zegmaar de bevoegdheden van de politie om geweld te gebruiken om mensen ergens anders naartoe te krijgen. Maar het was geen grote knokpartij."

Hoe gaat de brandweer daar mee om?

Maakt het hierbij verschil of de veiligheid van de 'weigeraars' in gevaar is?

Kan dit de taak van de brandweer belemmeren?

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[ De brandweer rukt vaak met spoed uit. Dit brengt risico's met zich mee voor andere verkeersdeelnemers ]

Hoe denkt u daar over?

"Helaas blijkt dat de brandweer wel eens aanrijdingen veroorzaakt met dodelijke afloop. Dat heeft geleid tot een specifieke richtlijn waarin staat dat je alleen rijdt met zwaailicht en sirene bij levensreddende taken. Dat is wanneer er mensen in nood zijn of als je dat verwacht. Heel zuiver beschouwt kan dat eigenlijk dan bijna nooit meer. Dat is een mentaliteitsomslag waar we middenin zitten nu. We proberen het aantal voertuigbewegingen met zwaailicht en sirene tot een minimum terug te dringen."

# Komen er (andere) situaties voor waarin de brandweer beslissingen neemt die mensen in gevaar brengen?

(Dit is waarschijnlijk ver gezocht, maar hierbij denk ik bijvoorbeeld aan een situatie waarin een zwaargewond persoon uit een autowrak moet worden gezaagd, maar waarbij dit niet kan zonder dat een andere beknelde inzittende gewond raakt.)

(Het verhaal van het slachtoffer dat gewon raakte door de beweging van de ladderwagen is hier een goed voorbeeld van)

"Een voorbeeld van zo'n situatie ken ik verder eigenlijk niet. Maar het 'leuke' van de praktijk is dat in principe alles kan gebeuren. Sterker nog, er gebeuren dingen die je niet kan verzinnen.

Wat ik bijvoorbeeld wel mee heb gemaakt is dat een halve schoorsteen gesloopt werd alleen maar om een duifje te redden. Dat soort grote schade maken om tot een goed gevolg te komen gebeurt wel vaker."

#### Zo ja, hoe worden dit soort beslissingen genomen?

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# Kent u andere voorbeelden van moeilijke dilemma's die in de repressieve functie van de brandweer voorkomen?

(Een mogelijk voorbeeld zou kunnen zijn het wel of niet redden van een brandstichter die door zijn eigen handelen in gevaar is gebracht)

"Het binnentreden van woningen is soms best heftig. Dat doen we bijvoorbeeld voor reanimaties of koolmonoxide-vergiftigingen. Je hebt daarvoor dan geen toestemming. Bij brand is dat minder heftig, want je hebt dan een erg duidelijke reden. Maar in sommige situaties geeft dat binnentreden best een bijzondere lading aan een situatie. Want voor de meeste mensen is hun huis toch de veilige plek. Mensen zijn in hun privé-situatie en er overkomt ze dan iets en daar sta jij dan met je helm, je laarzen, en je pak, iemand te reanimeren. En andere mensen die daar wonen staan dat dan op afstand te beschouwen.."

### Kent u (andere) praktijkvoorbeelden van situaties waarover het in dit gesprek ging?

"Wat ik verwacht dat de komende jaren steeds meer gaat spelen door het feit dat we proberen om als brandweer minder risico's te lopen en vaker zeggen: We trekken ons terug en laten het uitbranden, is hoe de buitenwereld daar tegen aan kijkt. Men verwacht toch dat de brandweer de brand blust. We zitten op dit moment nog net niet in een rechtszaak door een brand waarvan men wil aantonen dat de brandweer het niet goed heeft gedaan, waardoor er misschien geld voor ze valt te halen. Wij vinden juist dat we het goed hebben gedaan, omdat we geen onnodige risico's hebben genomen, zoals in de Punt. Sommige mensen denken dat er een soort ontwikkeling aan de gang is naar een situatie waarin dat soort zaken vaker gaat voorkomen."

Kent u andere mensen die ervaring of verstand hebben van dit soort morele kwesties in de (repressieve) brandweerpraktijk?