

# Bioethical Responsibility towards Current and Future Generations.

## Foundations and Applications – Part I

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*Responsibility, precaution, prevention*

**R**esponsibility is a key characteristic of free human actions<sup>1</sup>. «To be responsible is to have to *respond*, to render an account of one's actions, to another (an individual or a society) who has confined a thing, a person, a function etc., to us and to whom we are, at least implicitly, committed»<sup>2</sup>. It first involves *duties*, which may be «formulated as laws, regulations, and rules, perhaps in conjunction with underlying moral principles»<sup>3</sup>. A second key trait of responsibility is *strength*. In fact, «responsibility presumes that we have the personal strengths and the requisite skills to carry out our duties and to perform our tasks»<sup>4</sup>. As third key characteristic, responsibility «involves sound *judgement* about the good to be done in concrete situations»<sup>5</sup>. Altogether, the notion of *accountability* – “for judgments and actions”<sup>6</sup> – most adequately subsumes the term of responsibility.

Intersubjective relationship is *the* key to grasp the concept of responsibility. To be responsible for someone may also be translated in “taking care of the other one”<sup>7</sup>. Since this implies a relationship of trust, «the principle of responsibility is [...] a kind of principle of *trust*»<sup>8</sup>. Responsibility, which is then also realized by protecting others from evil<sup>9</sup>, may thus be identified with positively connoted precaution. If, on the other hand, *reciprocal suspicion or mistrust* dominates the intersubjective relationship, then precaution no longer means to take care of the other in the sense

of being responsible for him, but it even turns *against* him.

Both connotations of the term “precaution” may also be associated with the connected “precautionary principle”. «It was first formulated in the early 1970s in Germany when – in the context of atmospheric pollution – the expression of “Vorsorgeprinzip” was coined»<sup>10</sup>. The German expression “Vorsorge” literally refers to the positively connoted “taking care of”<sup>11</sup>. On the other hand, terms such as the French “précaution” or the English “precaution” are derived from the Latin *praecavere*, meaning «to guard against beforehand»<sup>12</sup>. These latter terms «have however in the common use a prevalently negative and “defensive” connotation. The German expression is perhaps closer to the Latin concept of “pro videre”, i.e. to foresee»<sup>13</sup>.

A similarity is found to the Latin root *porro videns* meaning «looking afar; not remaining at the immediate, but knowing to look further, beyond what one could see instinctively»<sup>14</sup>. Precisely this is the etymological root for the term of “prudence”<sup>15</sup>. Hence, the concept of precaution and – directly linked to it also the concept of responsibility – are both profoundly embedded in this capital virtue. It is however «important to note that precaution is only one among multiple constitutive elements of prudence»<sup>16</sup>; it is one of its “ingredients”<sup>17</sup>.

The precautionary principle was initially established only in the context of environmental protection<sup>18</sup>. A representative publication is the “Rio Declaration”, promulgated in



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June 1992 in the frame of the United Nations Conference on Environment and Development, see Principle 15 therein<sup>19</sup>. The precautionary principle was «only subsequently [...] also applied in health care politics»<sup>20</sup>. It should enable handling situations in which decisions are supposed to be taken while additional relevant scientific information needs to be expected. Overall, «this principle may [...] be interpreted as attitude of prudence, which seeks to avoid taking today a scientific decision that could tomorrow reveal itself as being not adapted»<sup>21</sup>.

Even though closely related, the concept of precaution has to be distinguished from the concept of prevention. In the context of health care, preventive actions «aim on one hand to ensure physical and mental integrity as well as to develop vital capacities of every person. On the other hand, these actions aim at reducing threats that the physical, psychological and social environment imposes on persons»<sup>22</sup>. In brief, whereas precaution is to be primarily understood as “handling the expectation of information”<sup>23</sup> – prevention is essentially concerned with “handling of risk”<sup>24</sup>.

*We have bioethical responsibility towards current and future generations*

The idea that man’s responsibility towards other humans is rooted in man’s *being* was aptly formulated by Hans Jonas. According to him, «an “ought” is concretely given with the very existence of man; the mere property of being a causative subject involves of itself objective obligation in the form of external responsibility»<sup>25</sup>. Jonas clearly distinguished between «particular, manifest responsibilities, with their several concrete obligations»<sup>26</sup> and the «abstract “ought”»<sup>27</sup> which refers to the «ontological responsibility for the idea of man. With this imperative we are, strictly speaking, not responsible to the future human individuals but to the *idea* of Man, which [...] demands the presence of its embodiment in the world»<sup>28</sup>. Jonas convincingly *illustrated* his ontological argumentation by

referring to what he called “the archetype of responsibility”<sup>29</sup>, i.e. the parent-child relation. In his Encyclical *Sollicitudo Rei Socialis*, Pope John Paul II emphasized that awareness and recognition of human «interdependence, sensed as a system determining relationships in the contemporary world, in its economic, cultural, political and religious elements, and accepted as a moral category»<sup>30</sup> is a fundamental prerequisite in order to overcome world-wide “injustices and violations of human rights”<sup>31</sup>. People who acknowledge their mutual interdependence respond appropriately by an attitude of solidarity. This corresponds to «a firm and persevering determination to commit oneself to the common good; that is to say to the good of all and of each individual, because we are all really responsible for all»<sup>32</sup>. Expressed in terms of the Christian Gospel, this responsibility means «to “lose oneself” for the sake of the other instead of exploiting him, and to “serve him” instead of oppressing him for one’s own advantage»<sup>33</sup>.

The concept of interdependence also runs as red thread through Pope Francis’ Encyclical *Laudato si’* that he explicitly addressed to «every person living on this planet»<sup>34</sup>. He enlarged the range of interdependence to all creatures on earth by repeatedly pointing «to the intimate relationship between the poor and the fragility of the planet, the conviction that everything in the world is connected»<sup>35</sup> as well as to the «serious responsibility of international and local policy»<sup>36</sup>. Pope Francis’ concern about loss of biodiversity is one representative example, in which he directly linked creature-wide interdependence with man’s responsibility<sup>37</sup>.

In accordance with his predecessor John Paul II, Pope Francis urged man to acknowledge human interdependence and responsibility for each other. He vividly claims that «we must regain the conviction that we need one another, that we have shared responsibility for others and the world, and that being good and decent are worth it»<sup>38</sup>. Pope Francis dedicated a specific section in his encyclical to the justice between generations and in particular to man’s responsibility towards

future generations<sup>39</sup>. According to him, «intergenerational solidarity is not optional, but rather a basic question of justice, since the world we have received also belongs to those who will follow us»<sup>40</sup>. Most importantly, the question on «what kind of world we want to leave to those who come after us»<sup>41</sup> directly leads to the intrinsically associated question on «the purpose of our life in this world»<sup>42</sup>. In fact, «we need to see that what is at stake is our own dignity»<sup>43</sup>.

As one representative achievement within the International Community in its efforts towards intergenerational solidarity, reference is made to the General Conference of the United Nations Educational, Scientific and Cultural Organization. UNESCO published in the frame of its meeting in Paris from 21<sup>st</sup>

October to 12<sup>th</sup> November 1997 a *Declaration on the Responsibilities of the Present Generations towards Future Generations*<sup>44</sup>. It initially admits that «the fate of future generations depends to a great extent on decisions and actions taken today, and that present-day problems [...] must be solved in the interests of both present and future generations»<sup>45</sup>. Article 1 then firmly proclaims that «the present generations have the responsibility of ensuring that the needs and interests of present and future generations are fully safeguarded»<sup>46</sup>. Even though such a declaration is not legally binding for involved nations, it nevertheless clearly expresses the commonly agreed attitude that is supposed to ground related national and international legislation.

In its comprehensive report entitled “Late lessons from early warnings: the precautionary principle 1896-2000”<sup>47</sup>, the European Environment Agency investigated 14 real cases of human economic activities, which had caused or still cause serious environmental and / or health hazards. One representative example consisted in the so-called “DES-story”<sup>48</sup>, which presented long-term carcinogen and teratogen effects of the synthetic oestrogen diethylstilboestrol (DES). DES, which had

been given to pregnant women in the 1950s, was only conclusively shown about 20 years later to cause cancer and a “wide range of reproductive tract abnormalities”<sup>49</sup> in those “DES daughters”<sup>50</sup>, who had been exposed *in utero* to DES. The estimated number of individuals exposed *in utero* ranges from 2 to 10 million<sup>51</sup> – a number, which speaks for itself about the vast extent of the caused damage. Beyond that, the authors rightly note that «the story of DES is far from over»<sup>52</sup>. In fact, far reaching known and unknown consequences will only appear as the exposed women age<sup>53</sup>.

Based on thoroughly gathered information, the complete report aimed at extracting 12 late lessons for the future, which «then might be applied to minimise repetition of the mistakes – or at least the oversights – of the past»<sup>54</sup>.

The authors drew particular attention on the impact of appropriately applying the precautionary principle. They emphasized in this context on the importance of acknowledging *from the beginning* “ignorance and uncertainty”<sup>55</sup> «about the consequences of human innovative commitments»<sup>56</sup>. According to the authors, these two unknowns need to be clearly differentiated from the probabilistic concept of risk<sup>57</sup>. Most importantly, the authors conclude that: «The precautionary principle implies the need, as a matter of cultural change, for society’s institutions to enlarge existing notions of ethical responsibility to encompass these unknowns, which are predictable in principle even though not in specifics»<sup>58</sup>. They lastly appeal to “expert-led institutions”<sup>59</sup> to «challenge and to build the opportunities and the frameworks for civil society to take on those responsibilities»<sup>60</sup>.

*Our bioethical responsibility towards current and particularly future generations is more limited as initially postulated*

According to David Hume, «an “ought” can never be derived from an “is”»<sup>61</sup>. (This could

### *The precautionary principle was initially established only in the context of environmental protection*

also be expressed as: an imperative can never result from an indicative)»<sup>62</sup>. Hence, it would not be legitimate to derive an imperative of responsibility from the fact that man *is*. Altogether, the position expressed by Hume's law is far from being shared only by isolated individuals. On the contrary, as noted by Elio Sgreccia in his fundamental work *Personalist Bioethics*, Hume's law «has become a sort of crossroads for all ethical discussions today. [...] It is responsible for the basic alignment of ethicists and bioethicists into two opposing groups»<sup>63</sup>.

To be responsible for an action is only possible if it can be attributed to the "I" – «only if its true cause is to be found in what makes of me a subject who is capable of self-determination. [...] Before being responsible before others, I am responsible before myself»<sup>64</sup>. In accordance with this line of thought, the notion of responsibility «is disengaged from the social element»<sup>65</sup> of responding to someone. This conception of responsibility was particularly emphasized by the French philosopher Jean Paul Sartre. Following his understanding, «responsibility is presented less as a consequence than as an aspect of liberty»<sup>66</sup>.

To say that the moral responsibility of each individual human being is principally *limited* means that «he is supposed to realize – during his entire life and in every situation – values that correspond to his task»<sup>67</sup>. Consequently, man is not responsible for not having realized other values, which he was not supposed to fulfil. As stated by Robert Spaemann, «our moral responsibility is only concrete, determined and not arbitrarily manipulable if it is at the same time limited. This means that we do not presuppose that we should be responsible for the entirety of consequences of each action and omission»<sup>68</sup>. According to Spaemann, this limitation of one's responsibility is even a prerequisite in order to distinguish "action" from "omission" and thus "to define omission»<sup>69</sup>. According to him, «cul-

pable omission means to omit something I was supposed to do. If we were supposed to be responsible for everything that we do not realize, if we had to evaluate for each action all other possible ways of acting in order to choose the best, we would be entirely overstrained»<sup>70</sup>.

Altogether, the approach of clearly delimiting one's responsibility inevitably leads to the key question on the responsibility's *content*. In other words, man is triggered to ask himself: What are actually the values that I am supposed to realize in my life? In addition, to clearly delimit one's responsibility also prevents man from a paralyzed attitude in front of too many tasks, which would end up in not considering oneself responsible for anything nor anyone.

Another important point to be mentioned in the context of limited responsibility concerns *unknown consequences* of someone's actions or omissions. In fact, within the frame of "his vocation and profession", «man is responsible for those consequences that he can *and must* foresee; also for those that he is permitted or obliged to aim at or that he must prevent, in case they are evil»<sup>71</sup>. However, «it is impossible to foresee in each case the consequences of one's own action on a long term basis»<sup>72</sup>. Moreover, the «consequences of someone's acting do often not only depend on the acting person alone, but also on the free will of other persons and on other circumstances»<sup>73</sup>. Altogether, this leads to the necessity of acknowledging the fact of *unknown* or *unforeseeable* consequences – beside those which are predictable and foreseeable<sup>74</sup>.

Lastly, the realism of delimiting one's responsibility questions a consequentialist approach, which only evaluates the moral value of an action based on foreseeable consequences. In fact, if this approach was entirely coherent, it would need to integrate the long-term impact or weight of unforeseeable consequences in the overall moral evaluation,

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which is impossible. As pithily expressed by Spaemann, «we should know what we cannot know in order to know what we shall do»<sup>75</sup>. To claim that everyone has responsibility towards current and future generations implicitly implies that everyone also possesses *a priori* the personal capability to realize this responsibility. An undeniable fact is however that this precondition cannot be realistically fulfilled by each individual within the society. In particular people who live under conditions of social pressure are primarily obliged to “make ends meet” in their daily life so that already their concern for their *own* life or health is necessarily impaired. Understandably, their social constraints also affect their capability of realizing their duties and hence responsibility towards others. Even if these people may have duties towards contemporary or future generations, they are even not in the position of fulfilling essential duties towards themselves.

To live in a healthy way is one of these key duties towards oneself. Giovanni Maio clearly addressed the fact of impaired ability of caring for one’s own health due to social pressure in the age of prevention. According to him, people living under social constraints «do not have any resources to think beyond vital needs; these people do not need any moral appeal or even the threat of sanctions»<sup>76</sup> in order to live health-consciously. «They rather need framework conditions in order to enable such behaviour at all»<sup>77</sup>. Maio deduces the «need to handle the appeal to prevention in a more differentiated way»<sup>78</sup> and finally calls for a «help for the ability to carry responsibility. [...] Society and social systems are themselves responsible for helping people in order to become able to carry responsibility»<sup>79</sup>.

The discussion on environmental responsibilities towards future generations revealed the difficulty that these generations, which reach far beyond children or grandchildren of the contemporary generation, «can hardly be considered as juridical subjects»<sup>80</sup>. Consequently, since «future generations are currently inexistent, it is impossible to define their rights, and no one can legitimately

be considered as their voice or representative»<sup>81</sup>. Hence, even though the concepts of (environmental) responsibility and duties towards these generations may be principally acknowledged, it has nevertheless become controversial to accept the term of “rights of future generations”<sup>82</sup>. Beyond that, «a right implies in some way obligations, and therefore also contracts or categories, which are inapplicable to the not-yet existent»<sup>83</sup>.

The above-mentioned lack of representatives was also one of the concerns that Hans Jonas raised when requiring «a new ethics of responsibility for and to a distant future»<sup>84</sup>. When looking on current public agencies, he noticed that «the future is not represented, [...] the nonexistent has no lobby, and the unborn are powerless. Thus accountability to them has no political reality behind it in present decision-making, and when they can make their complaint, then we, the culprits, will no longer be there»<sup>85</sup>. Thus, to identify representatives for future generations will certainly be one of the tasks in order to overcome far-reaching challenges arising from above-stated juridical implications.

Based on the multifaceted spectrum on how to principally approach bioethical responsibility towards current generations and those to come, it will now be required to investigate the responsibility’s *most profound* foundations. The following synthesis will therefore initially re-address the question whether an “ought to responsibility” may be deduced from man’s *being*.

#### *Responsibility as free “ought to respond”*

Man is a spiritual being, whose intellect and will – by being open to the infinite – always “tend to surpass every limit and to go beyond what is already conquered and attained”<sup>86</sup>. In being open to the Absolute<sup>87</sup>, «the human intellect [...] always wants to know new things and investigate unexplored fields. [...] It could only be satisfied if it could know absolute and infinite truth. The same must be said about the human will. It has an infinite openness [...] insofar as it is never content

with the good already obtained but tends toward a new and greater good. [...] Only the enjoyment of the unlimited and absolute good could satisfy it»<sup>88</sup>.

Thus, one could say that man's striving for an absolute end is constitutively inherent in his (spiritual) being. Important is here that «the end towards which one necessarily tends is, *of itself*, absolutely deserving of being striven for and attained»<sup>89</sup>. More specifically, the *good itself* entails so-to-speak a “necessity” to strive for it. In other words, a *call* to “necessarily seek the good” is addressed to man's free will.

How can this attraction by the good be characterised? What needs to be briefly introduced here is the concept of moral obligation, which precisely consists in «the necessity which is proper to liberty»<sup>90</sup>. Based on this, all previous reflections result in acknowledging «that the entire mystery of [moral] obligation is already present in the tendency [towards the end]. The ultimate end is then not only what *I cannot but will*, but what *I ought to will*. [...] It is clearer than ever that obligation is not reducible»<sup>91</sup> – to an “ought to” *tout court*. Consequently, it could be said that man *ought to will* the good.

To recapitulate, saying that man ought to will the good means that an *a priori* necessity resides in the call “to will the good” addressed to man – whereby this necessity originates from the good itself. As next step, one may identify this *preliminary* “necessity” as *condition* for the *resulting* necessity for man to *freely respond* to this call. This means that, while man is certainly always free in his response to this initial call, he nevertheless *has to respond* – in some way.

This point is where the concept of responsibility appears to be most profoundly anchored. In fact, following this line of thought, responsibility may thus be circumscribed as “necessity to respond in freedom to the preceding call of willing the good”. The synthesis between necessity and freedom is, as already mentioned above, what characterizes in general a moral obligation<sup>92</sup>. Consequently, responsibility might be described as “*ought to respond*” to the call of the good.

Lastly, this conception of responsibility includes both man's *a priori* capacity to respond as well as its concrete facticity. Particularly the latter will stand in the focus of the following Part II.

## NOTE

<sup>1</sup> J. DE FINANCE, *An Ethical Inquiry*, Gregorian and Biblical Press, Rome 2011, 42.

<sup>2</sup> J. DE FINANCE, *An Ethical Inquiry* ..., 42.

<sup>3</sup> T.W. OGLETREE, «Responsibility», in W.T. REICH (ed.), *Encyclopedia of Bioethics*, Macmillan, New York 1995, 2300-2305.

<sup>4</sup> T.W. OGLETREE, «Responsibility»..., 2300-2305.

<sup>5</sup> *Ibid.* Emphasis in italic added.

<sup>6</sup> Cf. *Ibid.*

<sup>7</sup> C. VIGNA, «Responsabilità e Precauzione», in L. MARINI - L. PALAZZANI (ed.), *Il Principio di Precauzione tra Filosofia, Biodiritto e Biopolitica*, Edizioni Studium, Rome 2008, 27-38. Translated text: «Rispondere, dunque, come prendersi cura d'altri».

<sup>8</sup> C. VIGNA, «Responsabilità e Precauzione» ..., 27-38. Translated text: «Il principio di responsabilità è [...] una sorta di principio della *fiducia*».

<sup>9</sup> Cf. *Ibid.* Translated text: «La responsabilità verso l'altro, infatti, implica proprio la protezione dell'altro dalla negatività».

<sup>10</sup> C. PETRINI, «Origini ed evoluzione del principio di precauzione», in C. PETRINI, *Bioetica, ambiente, rischio. Evidenze, problematicità, documenti istituzionali nel mondo*, Rubbettino, Soveria Mannelli 2003, 297-328. Translated text: «La prima formulazione del principio di precauzione come oggi usualmente è inteso risale agli inizi degli anni '70, quando, a proposito di inquinamento atmosferico, in Germania si conio l'espressione “Vorsorgeprinzip”, che letteralmente significa “principio del preoccuparsi prima». [C. Petrini refers in this quotation to K. VON MOLTKE, «The Vorsorgeprinzip in West German environmental policy», Royal Commission on Environmental Pollution, Twelfth Report: Best practicable environmental option, London, HMSO.]

<sup>11</sup> C. PETRINI, «Origini ed evoluzione del principio di precauzione» ..., 297-328. See endnote 10 for the Original Italian quotation.

<sup>12</sup> «Precaution». Online Etymology Dictionary [http://www.etymonline.com/index.php?allowed\\_in\\_frame=0&search=precaution](http://www.etymonline.com/index.php?allowed_in_frame=0&search=precaution) (Accessed on 25<sup>th</sup> July 2017).

<sup>13</sup> Cf. C. PETRINI, «Origini ed evoluzione del principio di precauzione» ..., 297-328. Translated text: «I termini derivati dal latino (“precauzione” in italiano, “précaution” in francese) hanno invece nell’uso comune una connotazione prevalentemente negativa e “difensiva”. L’espressione tedesca è forse più vicina al concetto espresso in latino dal “pro videre”, cioè guardare in avanti».

<sup>14</sup> G. MIRANDA, «Precauzione e prudenza», in L. MARINI - L. PALAZZANI (ed.), *Il Principio di Precauzione tra Filosofia, Biodiritto e Biopolitica*, Edizioni Studium, Rome 2008, 39-46. Translated text: «Il termine «prudenza» deriva da *porro videns*: guardare lontano; non fermarsi all’immediato, ma saper guardare al di là, più lontano di quello che in modo istintivo potrei vedere».

<sup>15</sup> Cf. G. MIRANDA, «Precauzione e prudenza» ..., 39-46. See endnote 14 for the Original Italian quotation.

<sup>16</sup> *Ibid.* Translated text: «È importante notare che la precauzione è solamente uno dei molti elementi costitutivi della prudenza».

<sup>17</sup> Cf. *Ibid.* Translated text: «[...] la prudenza, di cui la precauzione è solo un ingrediente».

<sup>18</sup> C. PETRINI, «Origini ed evoluzione del principio di precauzione» ..., 297-328. Translated text: «Negli anni ’80 il principio rimase riferito soltanto alla protezione dell’ambiente [...]. Solo successivamente [...] il concetto fu applicato anche alle politiche sanitarie».

<sup>19</sup> UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, «Rio Declaration on Environment and Development», 1992. [http://www.unesco.org/education/pdf/RIO\\_E.PDF](http://www.unesco.org/education/pdf/RIO_E.PDF) (Accessed on 25<sup>th</sup> July 2017).

<sup>20</sup> C. PETRINI, «Origini ed evoluzione del principio di precauzione» ..., 297-328. See endnote 18 for Original Italian quotation.

<sup>21</sup> C. PETRINI, «L’incertezza nella valutazione rischi / benefici nella prevenzione: aspetti di etica», in C. PETRINI, *Bioetica, ambiente, rischio. Evidenze, problematicità, documenti istituzionali nel mondo*, Rubbettino, Soveria Mannelli 2003, 9-24.

Translated text: «Il principio di precauzione può quindi essere interpretato come un atteggiamento prudente che cerca di evitare di prendere oggi una decisione scientifica che domani potrebbe rivelarsi non adatta».

<sup>22</sup> C. PETRINI, «L’incertezza nella valutazione rischi / benefici nella prevenzione: aspetti di etica» ..., 9-24. Translated text: «La prevenzione [...] ha come scopo da una parte l’assicurare l’integrità fisica e mentale e di sviluppare la capacità vitali di ogni persona, e dall’altra

il ridurre le minacce che gli ambienti fisici, psicologici e sociali fanno pesare sulle persone».

<sup>23</sup> Cf. *Ibid.* Translated text: «Si può quindi scindere il problema in due parti, adottando l’approccio di Treich, che definisce la precauzione come una gestione dell’attesa di informazioni e la prevenzione come una gestione del rischio».

<sup>24</sup> Cf. *Ibid.* See endnote 23 for the Original Italian quotation.

<sup>25</sup> H. JONAS, *The Imperative of Responsibility. In Search of an Ethics for the Technological Age*, The University of Chicago Press, Chicago 1984, 99.

<sup>26</sup> H. JONAS, *The Imperative of Responsibility* ..., 99.

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*

<sup>29</sup> Cf. *Ibid.*, 130.

<sup>30</sup> JOHN PAUL II, Encyclical *Sollicitudo Rei Socialis*, 38: AAS 80 (1988), 565-566. [http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf\\_jp-ii\\_enc\\_30121987\\_sollicitudo-rei-socialis.html](http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_30121987_sollicitudo-rei-socialis.html) (Accessed on 25<sup>th</sup> July 2017).

<sup>31</sup> Cf. JOHN PAUL II, Encyclical *Sollicitudo Rei Socialis*, 38: AAS 80 (1988), 565-566.

<sup>32</sup> *Ibid.*

<sup>33</sup> *Ibid.* Therein, reference is made to the following sections within the New Testament: «cf. Mt 10:40-42; 20:25; Mk 10:42-45; Lk 22:25-27».

<sup>34</sup> FRANCIS, Encyclical *Laudato si’*, 3: AAS 107 (2015), 848. [http://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco\\_20150524\\_enciclica-laudato-si\\_en.pdf](http://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf) (Accessed on 25<sup>th</sup> July 2017).

<sup>35</sup> FRANCIS, Encyclical *Laudato si’*, 3: AAS 107 (2015), 848.

<sup>36</sup> *Ibid.*, 3: AAS 107 (2015), 848.

<sup>37</sup> Cf. *Ibid.*, 42: AAS 107 (2015), 863.

<sup>38</sup> *Ibid.*, 229: AAS 107 (2015), 937.

<sup>39</sup> Cf. *Ibid.*, 159-162: AAS 107 (2015), 911-912.

<sup>40</sup> *Ibid.*, 159: AAS 107 (2015), 911.

<sup>41</sup> *Ibid.*, 160: AAS 107 (2015), 911.

<sup>42</sup> *Ibid.*

<sup>43</sup> *Ibid.*

<sup>44</sup> UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO), «Declaration on the Responsibilities of the Present Generations towards Future Generations», in: UNESCO, *Records of the General Conference, Twenty-ninth Session, Paris, 21 October to 12 November 1997, Volume 1 Resolutions*, 69-71. <http://unesdoc.unesco.org/images/0011/001102/110220e.pdf#page=75> (Accessed on 25<sup>th</sup> July 2017).

<sup>45</sup> UNESCO, «Declaration on the Responsibilities of the Present Generations towards Future Generations» ..., 69-71.

<sup>46</sup> *Ibid.*

<sup>47</sup> P. HARREMOËS - D. GEE - M. MACGARVIN - A. STIRLING - J. KEYS - B. WYNNE - S. GUEDES VAS, (ed.), *Late lessons from early warnings: the precautionary principle 1896-2000*, European Environment Agency, Copenhagen 2001. [http://www.eea.europa.eu/publications/environmental\\_issue\\_report\\_2001\\_22](http://www.eea.europa.eu/publications/environmental_issue_report_2001_22) (Accessed on 25<sup>th</sup> July 2017).

<sup>48</sup> D. IBARRETA, S.H. SWAN, «The DES story: long-term consequences of prenatal exposure», in P. HARREMOËS *et al.*, (ed.), *Late lessons from early warnings: the precautionary principle 1896-2000* ..., 84-92.

<sup>49</sup> Cf. D. IBARRETA - S.H. SWAN, «The DES story: long-term consequences of prenatal exposure» ..., 84-92.

<sup>50</sup> Cf. *Ibid.*

<sup>51</sup> Cf. *Ibid.*

<sup>52</sup> *Ibid.*

<sup>53</sup> Cf. *Ibid.*

<sup>54</sup> P. HARREMOËS *et al.*, (ed.), *Late lessons from early warnings: the precautionary principle 1896-2000* ..., 168.

<sup>55</sup> Cf. *Ibid.* 189.

<sup>56</sup> *Ibid.*

<sup>57</sup> Cf. *Ibid.* 170.

<sup>58</sup> *Ibid.* 189.

<sup>59</sup> Cf. *Ibid.*

<sup>60</sup> *Ibid.*

<sup>61</sup> Cf. D. HUME, *A treatise of Human Nature*, L.A. SELBY-BIGGE (ed.), Clarendon-Press, Oxford 1978, book III, part I, section I, 469.

<sup>62</sup> J. DE FINANCE, *An Ethical Inquiry*, Gregorian and Biblical Press, Rome 2011, 26.

<sup>63</sup> E. SGRECCIA, *Personalist Bioethics. Foundations and Applications*, The National Catholic Bioethics Center, Philadelphia 2012, 44.

<sup>64</sup> J. DE FINANCE, *An Ethical Inquiry* ..., 43.

<sup>65</sup> Cf. *Ibid.*

<sup>66</sup> *Ibid.*

<sup>67</sup> A. GÜNTHÖR, *Anruf und Antwort. Der Christ – gerufen zum Leben. Band I: Allgemeine Moraltheologie*, Patris Verlag, Valendar-Schönstatt 1994, 409. Translated text: «[Der einzelne Mensch] soll im Ganzen seines Lebens und in der jeweiligen Situation die Werte verwirklichen, die seinem Auftrag entsprechen».

<sup>68</sup> R. SPAEMANN, *Moralische Grundbegriffe*, Verlag C.H. Beck, München 1982, 70. Translated text: «Unsere sittliche Verantwortung ist nur dann konkret, bestimmt und nicht beliebig manipulierbar, wenn sie

zugleich begrenzt ist, das heißt, wenn wir nicht davon ausgehen, wir müßten jeweils die Gesamtheit der Folgen jeder Handlung und jeder Unterlassung verantworten».

<sup>69</sup> Cf. R. SPAEMANN, *Moralische Grundbegriffe* ..., 70. See endnote 70 for the original German quotation.

<sup>70</sup> *Ibid.* Translated text: «Nur unter dieser Voraussetzung läßt sich überhaupt der Begriff der 'Unterlassung' definieren. Schuldhaftige Unterlassung ist die Unterlassung von etwas, was ich hätte tun müssen. Wenn wir in jedem Augenblick alles verantworten müßten, was wir in diesem Augenblick nicht tun; wenn wir bei jeder Handlung alle alternativen Handlungsmöglichkeiten prüfen und die beste wählen müßten, wären wir vollständig überfordert».

<sup>71</sup> A. GÜNTHÖR, *Anruf und Antwort* ..., 417. Translated text: «[Der Mensch] ist verantwortlich für die Folgen, die er voraussehen kann *und muß*; die er außerdem anstreben darf oder muß bzw. verhindern kann und muß, wenn sie schlecht sind».

<sup>72</sup> *Ibid.* Translated text: «Es ist jedoch unmöglich, die Folgen des eigenen Tuns in jedem Fall auf lange Sicht vorauszusehen».

<sup>73</sup> *Ibid.* Translated text: «[Dieses Beispiel zeigt auch], daß die Auswirkungen des Handelns oft nicht ausschließlich vom Handelnden selbst abhängen, sondern auch vom freien Willen anderer [...] und von anderen Umständen».

<sup>74</sup> Cf. *Ibid.* Translated text: «Wenn die Folgen der Handlung ausschließlich über ihre sittliche Qualität entscheiden und also von höchster Bedeutung sind, ist nicht einzusehen, weshalb nur die „abschätzbaren“, voraussehbaren Auswirkungen wichtig sein sollen. Muß nicht der Mensch auf jeden Fall voraussehen, daß manche Folgen seines Tuns weithin nicht vorhergesehen werden können?»

<sup>75</sup> R. SPAEMANN, *Glück und Wohlwollen. Versuch über Ethik*, Verlag Klett-Cotta, Stuttgart 2009, 170. Translated text: «Wir müßten wissen, was wir nicht wissen können, um zu wissen, was wir tun sollen».

<sup>76</sup> G. MAIO, «The limits of self-responsibility in the age of prevention», in J. BONELLI - F. KUMMER - E. PRAT, (ed.), *Lifestyle and Responsibility*, Imago Hominis 18 (3), 171-178. Translated text: «Menschen, die so eingezwängt sind in ihren Alltag und keine Ressourcen haben, über die vitalen Bedürfnisse hinaus zu denken, diese Menschen brauchen nicht einen moralischen Appell oder gar eine Drohung von Sanktionen, [wenn sie nicht mehr Gemüse essen und mehr Dauerlauf betreiben], sondern sie brauchen Rah-



menbedingungen, die ihnen ein solches Verhalten erst ermöglichen».

<sup>77</sup> G. MAIO, «The limits of self-responsibility in the age of prevention»..., 171-178. See endnote 76 for the original German quotation.

<sup>78</sup> *Ibid.* Translated text: «Es bedarf eines differenzierteren Umgangs mit dem Präventionsappell».

<sup>79</sup> *Ibid.* Translated text: «[Daher würde ich als erstes Desiderat] die Hilfe zur Verantwortungsfähigkeit, Hilfe zur Befähigung formulieren. [...] Die Gesellschaft bzw. die sozialen Systeme tragen selbst Verantwortung dafür, Menschen zu helfen, verantwortungsfähig zu werden».

<sup>80</sup> C. PETRINI, «Alcune considerazioni sulla “responsabilità” ambientale verso le generazioni future», in C. PETRINI, *Bioetica, ambiente, rischio. Evidenze, problematicità, documenti istituzionali nel mondo*, Rubbettino, Soveria Mannelli 2003, 341-352. Translated text: «Infatti difficilmente le generazioni future possono essere considerate un soggetto giuridico».

<sup>81</sup> C. PETRINI, «Alcune considerazioni sulla “responsabilità” ambientale verso le generazioni future» ..., 341-352. Translated text: «[Secondo tale interpretazione], essendo le generazioni future attualmente inesistenti, non è possibile definirne i diritti, e nessuno può essere legittimamente considerato come loro portavoce o rappresentante».

<sup>82</sup> Cf. *Ibid.* Emphasis in Italic added. Translated text: «Alcuni autori accettano i concetti di “responsabilità”, “dovere”, “obbligo” verso le generazioni future, ma criticano la nozione di “diritto delle generazioni future”».

In the context of this argument, C. Petrini refers (reference 11) to: H.P. VISSERT’T HOOF, *Développement technologique et responsabilité envers les générations futures*, Archives de Philosophie du Droit 1991, 36 : 31-49.

<sup>83</sup> Cf. *Ibid.* Translated text: «Inoltre il diritto implica in qualche modo degli obblighi, e quindi anche dei contratti, ovvero categorie inapplicabili a ciò che non esiste ancora».

<sup>84</sup> H. JONAS, *The Imperative of Responsibility* ..., 22.

<sup>85</sup> *Ibid.*

<sup>86</sup> Cf. R. LUCAS LUCAS, *Man Incarnate Spirit – a Philosophy of Man Compendium*, Circle Press, USA 2005, 300.

<sup>87</sup> Cf. R. LUCAS LUCAS, *Man Incarnate Spirit* ..., 301.

<sup>88</sup> *Ibid.*

<sup>89</sup> J. DE FINANCE, *An Ethical Inquiry* ..., 100. Emphasis in italic added.

<sup>90</sup> *Ibid.* 95.

<sup>91</sup> *Ibid.* 100. Terms were added in brackets by the author of licence thesis for the purpose of clarity. Emphasis in bold added.

<sup>92</sup> *Ibid.* 95.