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Ponthiere, Gregory

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Stoicism and the Value of Life

Gregory Ponthiere*

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Abstract

Although the attitude towards death was central to Stoic philosophy, economists studying the value of life paid little attention to Stoicism. The goal of this paper is to build an analytical bridge between Stoicism and the economic study of the value of life. We use writings of Epictetus, Seneca and Marcus Aurelius to show that the Stoic thesis of the neutrality of death - one should not be afraid of death, because death causes no harm - is rooted in the Stoic discipline of judgements (one should distinguish things that belong to the self from things that are out of control, such as the duration of life) and in the Stoic discipline of desires (i.e., wish for nothing that is not under one's control). The Stoic thesis of the neutrality of death is formalized by using the Stoic discipline of desires, which is modeled as an extension of the symmetric factor of the preference relation beyond its boundaries under standard preferences. It is shown that, depending on the extension of the indifference relation required by Stoicism, a longer life has either a purely instrumental value, or no value at all.

Keywords: value of life, Stoicism, evil of death, indifference, discipline of desires.

JEL classification codes: I31, J17, B11.

^{*}Ecole normale supérieure de Rennes (ENS-Rennes), CREM (UMR 6211) and GLO. Address. ENS Rennes, Campus de Ker Lann, office R124, 11 avenue Robert Schumann, 35170 Bruz, France. E-mail: gregory.ponthiere@ens-rennes.fr

1 Introduction

Pioneered by the work of Dublin and Lotka (1946) measuring the evil of death in terms of foregone incomes, the economic analysis of the value of life has flourished during the last decades. At the theoretical level, the badness of death is no longer reduced to lost incomes due to death, but consists of all well-being that would have been enjoyed provided the person did not die so early (Usher 1973, 1980, Murphy and Topel 2003, Becker et al. 2005, Hall and Jones 2007). The theoretical concept of 'value of life' gave also rise to an empirical counterpart - the value of a statistical life (VSL) -, that is, the shadow value of reducing the risk of death per unit of risk (Dreze 1962, Schelling 1968, Jones-Lee 1974, Viscusi 1998, Miller 2000, Viscusi and Aldy 2004, Cropper et al. 2011).¹

There is nowadays a wide consensus among economists around the idea that a life-year - and a life as a whole - does not have a universal value, but has a value that depends on various factors determining the opportunity cost of dying.² First, at the objective level, the value of a life-year depends on the amounts of consumption, leisure time or other things that are enjoyed by the person during that life-year.³ Second, at the subjective level, the value of a lifeyear depends on the preferences of the persons, which include their conception of a life worth living (Fleurbaey and Ponthiere 2023). From that perspective, the badness of death is the opportunity cost - in well-being terms - of dying.

The economic approach to the value of life conflicts with how Ancient philosophers thought about the evil of death. Ancient philosophers from various schools of thought considered death to be a neutral event. For instance, in his *Letter to Menoeccus*, Epicurus argued that 'death is nothing to us' because of two reasons. First, the good and the bad are matters of sensation, whereas death is the deprivation of all sensations. Second, when the person is alive, the event of her death has not taken place, and once the death has taken place, the person is no longer alive (the non-existence argument). When reexamining these arguments, Broome (2004) argued that none of these is convincing. According to Broome, hedonism alone does not suffice to prove that death is neutral, because death can be bad by preventing the person from enjoying pleasant sensations. Concerning the non-existence argument, Broome argued that death can harm the person *even if* it does not make her worse-off at any moment in her life.⁴

The goal of this paper is to reexamine, from an economic perspective, other Ancient philosophical arguments supporting the neutrality of death. The arguments under study come from another Ancient philosophical school: Stoicism.

¹The VSL measures how much 100,000 persons would be willing to pay to reduce the risk of death from 1/100,000 to 0, that is, to save one life. The relation between the theoretical concept of value of life and the empirical concept of VSL is studied by Broome (1978).

 $^{^{2}}$ For a critique of the intuition of universality, see Fleurbaey and Ponthiere (2022).

³Note that these objective elements can be affected by individual choices. For instance, savings choices affect how much the person would have consumed in case of a longer life (Fleurbaey et al. 2014). The opportunity cost of death is also affected by societal choices such as working time regulations (Leroux and Ponthiere 2018) and policies about pensions and retirement (Fleurbaey et al. 2016, Ponthiere 2023).

⁴That point was made previously by Nagel (1979).

Stoicism was a major philosophical tradition in Ancient Greece and Rome, which recommended a particular 'art of living' or *ars vitae*, defined as a life in accordance with Nature, that is, a life in conformity with the person's position and status in the Universe. While there are various ways to interpret what 'a life in accordance with Nature' means, this paper will rely on the influential interpretations proposed by the 20th century philosopher Pierre Hadot (1978, 2001). According to Hadot, Stoicism is a doctrine recommending an *ars vitae* that consists of a threefold discipline: (i) the discipline of judgements (that is, describing things in physical terms); (ii) the discipline of desires (that is, wishing for nothing that is not under one's control); (iii) the discipline of acts (that is, for things that are under one's control, one should act for the Common Good).

In various writings, Stoic philosophers argued that a person should not be afraid of dying, because the death of a person is no harm for her. The goal of this paper is to present the Stoic thesis of the neutrality of death, and to revisit that thesis by formalizing it within the language of modern economics. As such, this paper aims at building an analytical bridge between Stoicism and the economic analysis of the value of life.

For that purpose, our analysis will proceed in two steps. First, we will use writings of Epictetus, Seneca and Marcus Aurelius to present the Stoic thesis of the neutrality of death, and we will examine how this thesis is rooted in the Stoic discipline of judgements and in the Stoic discipline of desires. Second, we will 'translate' the Stoic thesis of the neutrality of death into the language of modern economics. To do so, we will rely on a general economic interpretation of the Stoic discipline of desires as requiring the extension of the symmetric factor of the preference relation beyond its boundaries under standard preferences (Ponthiere 2024). While the extension of the indifference relation can take various forms, we will examine each of these formalizations of the Stoic discipline of desires, as well as their logical implications for the value of life.

Anticipating our results, we first show that the Stoic thesis of the neutrality of death is rooted in the Stoic discipline of judgements (which requires to distinguish between the things that are under one's control and the things that are not under one's control, such as one's duration of life) and in the Stoic discipline of desires (which requires to wish for nothing that is not under one's control). Then, we show that, depending on how one formalizes the Stoic discipline of desires as an extension of the symmetric factor of the preference relation, a longer life can have either a purely instrumental value, or no value at all. Thus, the precise way in which one formalizes the Stoic requirement of 'indifference to indifferent things' has key implications concerning the value of life and concerning the precise sense in which death is 'neutral' from a Stoic perspective.

This paper is related to several branches of the literature. First, this is linked to the economics literature on the value of life (Murphy and Topel 2003, Becker et al. 2005, Hall and Jones, 2007, Da Costa, 2020, 2023). Its contribution lies here in its attempt to translate, in the language of modern economics, the Stoic thesis of the neutrality of death, and in showing how adopting Stoicism would affect the valuation of life. Second, this paper is related to the philosophical literature reexamining Ancient philosophical arguments about the neutrality of death, such as Nagel (1979), Parfit (1984), Kamm (1993), Warren (2004), Broome (2004) and Bradley (2008). Whereas these philosophers reexamined Epicurean arguments supporting the neutrality of death, this paper studies a thesis that also supports the neutrality of death, but which was defended by a distinct tradition of thought, Stoicism. Third, this paper is also related to Ponthiere (2024)'s recent attempt to provide an economic interpretation of Stoicism as a discipline of thought requiring an extension of the symmetric factor of the preference relation beyond its boundaries under standard preferences. The contribution of the present work with respect to Ponthiere (2024) lies in its emphasis on the logical implications of the Stoic discipline of desires for the attitude towards death, an issue that was at the core of the Stoic art of living.

The remaining of the paper is organized as follows. Section 2 uses writings of Epictetus, Seneca and Marcus Aurelius to present the Stoic thesis of the neutrality of death, and explains how that argument is rooted in the Stoic discipline of judgements and in the Stoic discipline of desires. Then, Section 3 presents a simple economic formalization of the Stoic discipline of desires, and discusses two distinct extensions of the indifference relation. Section 4 studies the logical implications of these formalizations of the Stoic discipline of desires for the value of life. Conclusions are left to Section 5.

2 Stoicism and the evil of death

Stoicism as a threefold discipline Pioneered by Zeno of Citium in the 4rth century BC, and then developed by Chrysippus and Cleanthe, Stoicism is one of the four major philosophical schools of Ancient Greece, together with Platonism, Aristotelianism and Epicureanism.⁵ Like all philosophical doctrines under Ancient Greece, Stoicism should not be understood as a consistent system of thought, but, instead, as a discourse defending an *ars vitae* inseparable from a way of life (exemplified by the philosopher himself).⁶ Stoicism recommends a conception of the 'good life' that consists of a life in accordance with Nature, i.e., a life in conformity with the position of the person in the Universe.

While there exist several ways to define a 'life in accordance with Nature', we will, throughout this paper, rely on Hadot's interpretation of Stoicism as a threefold discipline of the interior discourse: the discipline of judgements, the discipline of desires, and the discipline of acts (Hadot 1978, 2001). These disciplines of the interior discourse are justified as follows: since a person is an infinitely small part of the Universe, and is subject to many external events

 $^{{}^{5}}$ Stoicism takes its name from the Greek word *stoa* (or arcade), that is, the place where it used to be taught by Zeno of Citium (Hadot 1995).

⁶This interpretation of Ancient doctrines as mere *ars vitae* was defended by Hadot (1995, 2002), but is not shared by all philosophers. For instance, Goldschmidt (1953) argued that Stoicism is a consistent system of thought, which draws its internal logical consistency from a particular attitude towards time ('live in the present instant'). Note, however, that, as Goldschmidt acknowledged, the logic behind Stoicism is not a deductive logic, but, rather, a logic of formal identities, all Stoic precepts being, in some sense, regarded as 'one and the same thing' (i.e., *allant du même au même* in Goldschmidt's words).

(diseases, wars, natural disasters, deaths, etc.), the only way for a person to live in accordance with her nature consists of paying exclusive attention to the things that are under her control (her judgements, her desires and her acts), that is, to what Marcus Aurelius called her 'inner citadel'. This explains why a life in accordance to Nature requires satisfying the disciplines of judgements, desires and acts. Let us now briefly present these disciplines of thought.

The Stoic discipline of judgements consists of describing things in a physical way, that is, 'as they are', without being influenced by value judgements, beliefs and social norms. First of all, the discipline of judgements requires that the person is able to delimit herself correctly. This means that the person must be able to separate, on the one hand, what is under her control (her judgements, her desires/aversions and her acts/willingness to act), and, on the other hand, what is *not* under her control (her body, her past, her future, material goods, others' acts, honours and reputation).⁷ In addition, the discipline of judgements requires to describe all things in a way that is as neutral as possible, to avoid contamination by social beliefs and social norms.

The Stoic discipline of desires consists of wishing for nothing that is not under one's control. This is summarized by Epictetus's precept of 'Take away then aversion from all things which are not in our power, and transfer it to the things contrary to nature which are in our power' (Epictetus, *Manual*, II). The intuition behind this precept goes as follows. Desiring things that are not under our control can only make us unsatisfied, unhappy and alienated.⁸ Thus desiring less is the only strategy to avoid dissatisfaction, unhappiness and alienation. The Stoic discipline of desires is often summarized by the requirement of 'indifference to indifferent things', but should not be confounded with the ignorance of external things, because ignorance would contradict the Stoic discipline of judgements. Nor should we confound the Stoic discipline of desires with global indifference, that is, indifference to everything.⁹ Indeed, Stoicism is not about being indifferent to everything, but about concentrating one's desires and aversions on the few things that the person can control.

The Stoic discipline of acts concerns things that are under the person's control. It requires that, concerning these things, the person always acts in accordance with the Common Good, that is, the values of the City. The intuition behind this discipline is related to the ideal of a 'life in accordance with Nature'. A person is a small part of a bigger whole, the City. As a consequence of that, living 'in accordance with Nature' requires that this small part of the whole acts in conformity with the whole to which it belongs. This point is exemplified by Marcus Aurelius by means of the metaphor of the organs of the body, such

⁷This delimitation of the self is related to the older precept according to which a person should 'know herself', which was popular among Pre-Socratic philosophers (Hadot 1995).

⁸See Epictetus, *Manual*, XXI, as well as Epictetus, the *Discourses*, book 3, XVI, about the metaphor of the child who wants to take lots of fruits from a pot, and cannot take his hand back because of too many fruits in the hand. See also Epictetus, the *Discourses*, book 4, VI, about the idea that happiness can be achieved by having no desire for external things.

⁹Global indifference is associated with the doctrine of the philosopher Pyrrhon (see Hadot 1995). The intuition was that if the good and the bad are matters of social conventions, judgements about goodness or badness should be suspended, which yields global indifference.

as the foot (*Thoughts for Myself*, VIII, 34). For sure, a foot that walks on its own, independently from the whole to which it belongs (i.e., the body), accomplishes something useless and meaningless. A life in accordance with Nature thus requires persons to act in conformity with the Common Good.¹⁰

The Stoic thesis of the neutrality of death Let us now examine how the Stoic doctrine deals with death. As we shall see, Stoic philosophers developed arguments aimed at convincing the layman that *persons should not be afraid of dying, because death does not harm the person who dies.* While these arguments, which were formulated by different philosophers, appear under distinct forms (including various metaphors), they rely nonetheless on a common metaphysical basis - the fundamental distinction between what depends on the person and what does not depend on her - as well as on the Stoic discipline of desires, which requires to wish for nothing that is not under one's control.

The Stoic thesis of the neutrality of death can be summarized as follows. Describing the world in a purely physical way reveals that the duration of life is *external* to the present self of the person and is *not under her control*. No human being can control the duration of his life: accidents/events can suddenly bring a life to its end, and such circumstances are no under the power of the person. Hence, based on the Stoic requirement of 'indifference to indifferent things', the person should be indifferent towards the duration of her life, in the same way as she should be indifferent towards all things external to her.

That general argument supporting the neutrality of death can be found, under different forms, in the writings of several Stoic philosophers. As we shall now see, although the form of the argument justifying the neutrality of death is not exactly the same across all writings, there is, however, a constant reference to the Stoic discipline of judgements - the duration of life must be described as it is, that is, as something external to us - and to the Stoic discipline of desires - the duration of life being out of control, persons should be indifferent towards it -. Let us now present some Stoic writings supporting the neutrality of death.

Epictetus In his *Manual*, Epictetus argued that, although people regard death as terrible, there is nothing terrible in dying once death is described correctly (*Manual*, V):

Men are disturbed not by the things which happen, but by the opinions about the things; for example, death is nothing terrible, for if it were it would have seemed so to Socrates; for the opinion about death that it is terrible, is the terrible thing.

According to Epictetus, describing death 'as it is' allows to make persons understand what death really is - something out of control -, and, hence, allows them also to adopt the right attitude towards death: *indifference*. Indeed,

 $^{^{10}}$ This requires concentrating their talents and skills on things that can best serve the other citizens, in line with the values of the society as a whole.

indifference is the only reasonable attitude towards things that are not under one's control, such as the duration of life of one's children (*Manual*, XIV):

If you would have your children and your wife and your friends to live for ever, you are silly; for you would have the things which are not in your power to be in your power, and the things which belong to others to be yours. So if you would have your slave to be free from faults, you are a fool; for you would have badness not to be badness, but something else. But if you wish not to fail in your desires, you are able to do that. Practise then this which you are able to do. He is the master of every man who has the power over the things which another person wishes or does not wish, the power to confer them on him or to take them away. Whoever then wishes to be free let him neither wish for anything nor avoid anything which depends on others: if he does not observe this rule, he must be a slave.

Epictetus argued that persons should wish for nothing that is not under their control. That point is made by using various metaphors, including the one of a guest enjoying a meal at a table: the right attitude is to always accept the circumstances that prevail, and to never complain about these. Another metaphor used is the one comparing a life with an actor's play. The actor does not choose the content of the play, nor the duration of the play. These external things being out of his control, they should make no difference to him, and the only thing that should matter for the actor is to be good at playing his role in the play (that is, to be good at his position in the whole to which he belongs), no matter when the play will stop (*Manual*, XVII):

Remember that thou art an actor in a play, of such a kind as the teacher (author) may choose; if short, of a short one; if long, of a long one: if he wishes you to act the part of a poor man, see that you act the part naturally; if the part of a lame man, of a magistrate, of a private person, (do the same). For this is your duty, to act well the part that is given to you; but to select the part, belongs to another.

To make auditors better understand why death should not cause aversion, Epictetus used also the metaphor of life as a sea cruise (*Discourses*, II, 5):

Where I can be hindered and compelled the obtaining of those things is not in my power, nor is it good or bad; but the use is either bad or good, and the use is in my power. But it is difficult to mingle and to bring together these two things, the carefulness of him who is affected by the matter and the firmness of him who has no regard for it; but it is not impossible; and if it is, happiness is impossible. But we should act as we do in the case of a voyage. What can I do? I can choose the master of the ship, the sailors, the day, the opportunity. Then comes a storm. What more have I to care for? for my part is done. The business belongs to another - the master. But the ship is sinking- what then have I to do? I do the only things that I can, not to be drowned full of fear, nor screaming, nor blaming God, but knowing that what has been produced must also perish: for I am not an immortal being, but a man, a part of the whole, as an hour is a part of the day: I must be present like the hour, and past like the hour. What difference, then, does it make to me how I pass away, whether by being suffocated or by a fever, for I must pass through some such means?

This metaphor illustrates the Stoic thesis of the neutrality of death in a synthetic manner: a life in accordance with Nature requires to concentrate one's desires on what one can control, and to be indifferent towards things outside control. Death belongs to the second class of things. Therefore the person should exhibit indifference towards it.

Seneca Epictetus's argument was reformulated by Seneca in *On the Short*ness of Life. Seneca argued that, although it is often perceived as a universal evil, death is not bad. Life is not too short for humans, but humans are the ones who make their life short, by wasting their time in useless activities, such as looking for honours, reputation, or material wealth. The key idea is that a premature death cannot make a life bad: only the things that persons do during their life can make their life good or bad, no matter the length of their life. The underlying intuition is the same as in Epictetus's argument: humans can only control how they use their (scarce) lifetime, but they cannot control the duration of their life. Hence humans should be indifferent towards the duration of their life. Let us quote Seneca (*On the Shortness of Life*, I):

Most of mankind, Paulinus, complains about nature's meanness, because our allotted span of life is so short, and because this stretch of time that is given to us runs its course so quickly, so rapidly-so much so that, with very few exceptions, life leaves the rest of us in the lurch just when we're getting ready to live.

But this popular belief in the evil of death is a mistake: life is not too short, but humans make it short by wasting their time (*On the Shortness of Life*, II):

It's not that we have a short time to live, but that we waste much of it. Life is long enough, and it's been given to us in generous measure for accomplishing the greatest things, if the whole of it is well invested. But when life is squandered through soft and careless living, and when it's spent on no worthwhile pursuit, death finally presses and we realize that the life which we didn't notice passing has passed away. So it is: the life we are given isn't short but we make it so; we're not ill provided but we are wasteful of life.

The reason why humans waste their time is that humans, by mistakenly describing the world, do not realize that lifetime is a scarce resource (*On the Shortness of Life*, VIII):

I am always astonished when I see people requesting the time of others and receiving a most accommodating response from those they approach. Both sides focus on the object of the request, and neither side on time itself; it is requested as if it were nothing, granted as if it were nothing. People trifle with the most precious commodity of all; and it escapes their notice because it's an immaterial thing that doesn't appear to the eyes, and for that reason it's valued very cheaply-or rather, it has practically no value at all.

As it is the case in Epictetus's *Manual*, errors in the description of things are the general cause of misrepresentations and misbehaviors. The immateriality of time makes humans unaware that time is a scarce resource. The Stoic discipline of judgements requires that humans fully acknowledge the scarcity of their lifetime. Then, this scarcity being acknowledged, the available time should be used for the flourishing of the self, and not for the pursuit of things that are external to the self, such as a good reputation or high honours. Pursuing these external goals can only shorten one's life (*On the Shortness of Life*, VII):

So there's no reason to believe that someone has lived long because he has gray hair and wrinkles: he's not lived long but long existed. For suppose you thought that a person had sailed far who'd been caught in a savage storm as soon as he left harbor, and after being carried in this direction and that, was driven in circles over the same course by alternations of the winds raging from different quarters: he didn't have a long voyage, but he was long tossed about.

At this stage, it is worth underlining the - possible - existence of tensions between Epictetus's views about the neutrality of death and some of Seneca's arguments in On the Shortness of Life. The - at least apparent - tension goes as follows. On the one hand, Seneca argued that what makes a life good or bad is not its (chronological) duration. This view supports the idea of neutrality of death, like in Epictetus's Manual. On the other hand, Seneca argued that persons should make the best use of their lifetime, which is a scarce resource that should not be wasted. Time is thus like an instrument given to us, and, as such, time exhibits some kind of instrumental value. This view seems to contradict the idea of neutrality of death formulated by Epictetus.

We will not try, at this early stage of our explorations, to take a stance on the issue of whether or not there is a contradiction here.¹¹ But these apparent tensions will motivate us to provide, in the next sections, a (partial) formalization of Stoicism, and, then, to use this formalization to clarify under which

¹¹The question is to know whether these apparent tensions are due to our misinterpretation of a consistent system of thought, or, alternatively, point to actual inconsistencies within the Stoic doctrine. In his review of Ancient philosophies, Hadot (1995) argued that thinkers doing philosophy in Ancient times were only reformulating arguments imported from their masters. From that perspective, there can be no inconsistency arising from a mere reformulation of the thesis of the neutrality of death. Taking a different stance, the present study will try to cast an original light on such apparent tensions by showing how they relate to distinct possible 'translations' of the Stoic discipline of desires into the language of modern economics.

conditions Stoicism is compatible with the thesis of a purely instrumental value of longevity, or, alternatively, with the thesis of longevity having no value at all.

Marcus Aurelius The neutrality of death was also defended by Marcus Aurelius, who argued that death and life, like poverty or wealthiness, are circumstances of life under which everyone can fall. The fact that these things are out of control makes these neither good nor bad (*Thought to Myself*, II, 11):

Now, death and life, glory and reproach, pain and pleasure, riches and poverty, all these happen promiscuously to the good and bad. But as they are neither honourable nor shameful, they are therefore neither good nor evil.

Death is neither good nor bad for the person who dies. The reason is that death cannot deprive the person of anything (*Thought to Myself*, II, 14):

If thou shouldst live three thousand years, or as many myriads, yet remember this, that no man loses any other life than that he now lives; and that he now lives no other life than what he is parting with, every instant. The longest life, and the shortest, come to one effect: since the present time is equal to all, what is lost or parted with is equal to all. And for the same reason, what is parted with, is only a moment. No man at death parts with, or, is deprived of, what is either past or future. For how can one take from a man what he hath not?

The neutrality of death is a corollary of the Stoic disciplines of judgements and desires. Marcus Aurelius argued that, since the future of the person does not belong to her, the person cannot be deprived of her future. Thus death cannot deprive the person. As a consequence, death is not bad for the person.

Convergences and divergences In sum, the three Stoic philosophers studied here all argued that persons should not be afraid of dying, because death causes no harm. They all argued that the fear of death is based on a misleading description of what death is. Once the duration of life is described 'as it is' - that is, as something out of control - it follows from the Stoic discipline of desires that persons should wish for nothing concerning the duration of their life, which leads to some form of neutrality of death. Having highlighted these convergences, there exist also, as we have underlined, some tensions between the different arguments, some of these pointing to a 'neutrality' of death under distinct senses of 'neutrality'. These tensions motivate us to try to clarify the meaning of the Stoic thesis of the neutrality of death by means of a formalization of Stoicism, and, in particular, of the Stoic discipline of desires.

3 Modelling the Stoic discipline of desires

In order to revisit the Stoic thesis of the neutrality of death through the lenses of economic analysis, the first task consists in providing a 'translation' or a formalization of that thesis in the language of modern economics. From that perspective, it is relevant to relate the Stoic discipline of desires to the standard concepts of welfare economics, such as the preference relation.

In a recent work, Ponthiere (2024) argued that the Stoic discipline of desires can be interpreted as a requirement of the extension of the symmetric factor of the preference relation beyond its boundaries under standard preferences. The extension consists of requiring that the person is indifferent to things that are not under her control, in line with Epictetus's precept of 'take away then aversion from all things which are not in our power' (Manual, II). This section will adopt that economic interpretation of Stoicism, which does justice to the key Stoic idea of 'indifference to indifferent things'.

Generalities To formalize the Stoic discipline of desires in a simple economic model, this section adopts the major dogma of Stoicism, and partitions the world in two classes of things: on the one hand, things under one's control, and, on the other hand, things that are not under one's control. Following this partition, we will, in order to examine the value of a life, study a framework where a life as composed of two kinds of things: (i) *acts*, which are under the control of persons; (ii) *circumstances*, which are not under their control.¹²

A life extends over a relatively long time interval, and, hence, includes a large number of acts, as well as a large number of circumstances. In the following, we will, for the sake of analytical simplicity, collect all acts carried out by a person during a life into a single multidimensional object called a 'life-act'. We will thus define *life-acts* as baskets (or lists) of acts carried out by a person during her life.¹³ The (non-empty) set of all life-acts is A. Similarly, we will collect all circumstances faced by a person during her life *life-circumstances* as baskets (or lists) of circumstances as baskets (or lists) of circumstances as baskets (or lists) of circumstances faced by a person during her life.¹⁴ The (non-empty) set of all life-circumstances is C. A life will thus be modelled as a pair (life-act, life-circumstance). The (non-empty) set of all lives is $L = A \times C$.

Let us now introduce the *preference relation* on lives. Let $R \subseteq L \times L$ be a binary relation on L. As defined by Bossert and Suzumura (2010), the

 $^{^{12}}$ As we will discuss in Section 4, the duration of a life belongs, from a Stoic perspective, to the category of circumstances (that is, a thing on which the person has no control).

¹³Note that a life-act is a list that includes all acts carried out during a life, each act being precisely localized in time and space. Otherwise, if the description of these acts were incomplete, two distinct lives including the same circumstances and the same acts but carried out in distinct orders or distinct places would be regarded as one and the same life.

¹⁴In the description of a life-circumstance, each circumstance faced by the person during her life is localized in time and space. If, on the contrary, the description were incomplete, two distinct lives including the same acts and the same circumstances, but faced by the person in distinct orders or distinct places, would be regarded as one and the same life.

symmetric factor of R is:

$$I(R) = \{ (x, y) \in L \times L | (x, y) \in R \text{ and } (y, x) \in R \}$$

The asymmetric factor of R is:

$$P(R) = \{ (x, y) \in L \times L | (x, y) \in R \text{ and } (y, x) \notin R \}$$

We will interpret the relation R as a weak preference relation, I(R) as the indifference relation, and P(R) as a strict preference relation. As usual, R is assumed to be complete, reflexive and transitive.

The remaining of this paper will examine the implications of Stoicism on the valuation of lives, that is, on the form of the preference relation R. For that purpose, a preliminary step consists of translating the Stoic discipline of desires in terms of R. As stated above, we will propose here to interpret *Stoicism* as a requirement of extension of the symmetric factor I(R) of the preference relation. Interestingly, there are several distinct ways of extending I(R).

The first account of the Stoic discipline of desires A first economic interpretation of the Stoic ideal of 'indifference to indifferent things' consists of requiring that the person is indifferent between all lives that differ only regarding life-circumstances. The intuition here is to translate Epictetus's precept of 'take away then aversion from all things which are not in our power' by considering that things not under control are neither good nor bad for the person, and, hence, are a cause of indifference between lives that differ only on life-circumstances.

As argued in Ponthiere (2024), this interpretation of the Stoic discipline of desires is in line with the *Manual* (XXXII), where Epictetus underlines that:

For if it is any of the things which are not in our power, it is absolutely necessary that it must be neither good nor bad.

Things outside control being neither good nor bad, it follows that, everything else being unchanged, these things cannot make the life better or worse for the person, because these things 'make no difference'.

In the context of valuing lives, this first account of the Stoic discipline of desires can be formulated as follows.

Definition 1 (I1 account of the Stoic discipline of desires) For all lives $x, y \in L$ such that x = (a, m) and y = (b, n) with a = b and $m \neq n$, we have:

$$(x,y) \in I(R)$$

The I1 account of the Stoic discipline of desires amounts to require that the person is indifferent between all lives that differ only on life-circumstances, which are things that are not under the control of the person. This extension of the indifference relation is a way to formalize the Stoic idea of wishing for nothing that is not under one's control. The intuition is that if life-circumstances do not make any difference to the person, the person should be indifferent between lives that differ only on life-circumstances but are the same on other aspects. The second account of the Stoic discipline of desires As argued by Ponthiere (2024), the I1 account is not the only possible formalization of the Stoic discipline of desires. An alternative interpretation consists of requiring that the person is indifferent between all lives that are the best under each set of life-circumstances. The intuition behind this second extension of the indifference relation can be found in writings of Epictetus and Marcus Aurelius.

Epictetus argued that what matters to have a good life is not the circumstances that arise, but what the persons make out of these circumstances. This point is made thanks to the handles metaphor (*Manual*, XLIII):

Everything has two handles, the one by which it may be borne, the other by which it may not. If your brother acts unjustly, do not lay hold of the act by that handle wherein he acts unjustly, for this is the handle which cannot be borne; but lay hold of the other, that he is your brother, that he was nurtured with you, and you will lay hold of the thing by that handle by which it can be borne.

The underlying intuition is that lots of things can happen in a life, but that what makes a life good or bad is our capacity to make the best of these things, that is, to take these circumstances by the 'good handle'.

Marcus Aurelius develops the same idea by means of another metaphor, the one of the bright fire (*Thoughts to Myself*, IV, 1):

When the governing part is in its natural state, it can easily change and adapt itself to whatever occurs as the matter of its exercise. It is not fondly set upon any one sort of action. It goes about what seems preferable, with a proper reservation.1 And if any thing contrary be cast in, makes this also the matter of its proper exercise. As a fire, when it masters the things which fall on it, tho' they would have extinguished a small lamp: the bright fire quickly assimilates to itself and consumes what is thrown into it, and even thence increases its own strength.

Being 'like a bright fire' consists of being able to accommodate to anything that happens in life. From a Stoic perspective, the precise circumstances that turn out to arise do not matter: the bright fire masters all these things.¹⁵ Being *in harmony with circumstances* is the only way to live a life 'in accordance with Nature', in line with the Stoic ideal of a 'good life'. This second account of the Stoic discipline of desires can be formulated as follows.

Definition 2 (I2 account of the Stoic discipline of desires) Suppose that, for a life-circumstance m, we have that:

 $\exists w = (a,m) \in L : (w,x) \in P(R) \text{ for all } x = (b,m) \in L \text{ with } b \neq a.$

¹⁵Note that, in *Thoughts to Myself*, Marcus Aurelius relied also on another metaphor, of being 'like a stomach' (*Thoughts to Myself*, X, 35).

Suppose that, for another life-circumstance $n \neq m$, we have that:

 $\exists y = (c, n) \in L : (y, z) \in P(R) \text{ for all } z = (d, n) \in L \text{ with } d \neq c.$

Then one has:

 $(w, y) \in I(R)$

The I2 account of the Stoic discipline of desires thus requires indifference between lives that are the best under each life-circumstances. This formalization captures the idea that what matters to reach a good life is, from a Stoic perspective, to do the best one can do with these life-circumstances.

In sum, the I1 and I2 accounts of the Stoic discipline of desires characterize different attitudes towards life-circumstances. As such, these accounts formalize distinct ways in which things out of control should not 'make a difference' to the person. The next Section will use these two formalizations of the Stoic discipline of desires to reexamine the Stoic thesis of the neutrality of death.

4 The Stoic attitude towards death revisited

As we have seen, Stoic philosophers argued that persons should not be afraid of dying, because death causes no harm. The reason behind this neutrality of death is that the duration of life is not under the person's control. Hence, the person should be indifferent to it, which leads to the neutrality of death. To provide an economic account of that argument, let us follow the Stoic tradition and assume that the duration of life is a pure circumstance for the person, something that is not under her control. This assumption is part of how Stoic philosophers partition the world into things under control and things not under control, and, as such, is part of the Stoic discipline of judgements.

It should be stressed here that, beyond Stoicism, this view of the duration of life as something out of control is generally compatible with how Ancient Greeks used to represent their life, as it is illustrated in their literature. In Greek tragedies, external forces could suddenly bring the life of an ordinary person to its end (see Tilgher 1922). Longevity was thus regarded as a pure circumstance, on which persons had no control at all. Such a vulnerability to (uncontrollable) external forces is at the root of the Stoic doctrine, which can be regarded as providing remedies to cope with the possibility of such adverse life-circumstances. In the light of this, it makes a lot of sense, to revisit the valuation of life from a Stoic perspective, to consider that the duration of life belongs to the circumstances faced by the person, and is not chosen by her.

As we shall now see, assuming that the duration of life is a circumstance for the person has important implications for the value of life once one adopts the economic accounts of the Stoic discipline of desires presented in Section 3.

The value of life under the I1 account of the discipline of desires Let us first adopt the requirement of indifference between lives that differ only on life-circumstances. Taking the duration of life as a component of life-circumstances, it follows that the I1 account of the Stoic discipline of desires requires that the person is *indifferent between all lives that include the same life-acts but differ on their durations*. Thus, when considering two lives with the same life-acts a, but two durations d and $d' \neq d$ that lead to two distinct life-circumstances $c \neq c'$, the Stoic discipline of desires implies that there must be indifference between lives (a, c) and (a, c').

While it is tempting, at first glance, to deduce from this corollary that the duration of life is valueless to the person, it should be stressed that this indifference only concerns lives with exactly the same life-acts, that is, lives during which the person accomplishes exactly the same acts. This *ceteris paribus* postulate is strong: it is most likely that, thanks to additional life-years, a person can carry out *other acts* during her life, leading to a distinct life-act $a' \neq a$. Such a case is illustrated in Table 1, which compares three lives: lives w and x that include the same life-acts a but different durations $d \neq d'$ (with d' > d) and life z, which has duration d' and includes a life-act $a' \neq a$.

	Life-circumstances	
Life-acts	c (a life duration d)	c' (a life duration d')
а	w = (a, c)	x = (a, c')
a'	does not exist	z = (a', c')

Table 1: Valuing lives of unequal durations.

The I1 account of the Stoic discipline of desires implies indifference between lives that include the same life-acts but differ on life durations. Hence, the person should be indifferent between lives w and x: $(w, x) \in I(R)$. Suppose now that the life-act a' is more valuable than the life-act a, so that the person prefers strictly life z to life x: $(z, x) \in P(R)$. Then, by transitivity, we can deduce also that life z is strictly better than life w: $(z, x) \in P(R)$. Hence, when the lengthening of life allows the person to carry out more valuable acts, the longer life is preferred to the shorter life.

Thus, under the I1 account of the Stoic discipline of desires, the fact that a longer life allows the person to carry out more valuable acts suffices to make the longer life more valuable than the shorter one. Note that this condition is not only sufficient, but also necessary to make the longer life more valuable. Indeed, in the alternative case where the extra life-years under duration d' do not allow for more valuable acts to be carried out, there would be indifference between lives x and z, and, then, also indifference between lives w and z. Hence, in that alternative case, the longer life would not be more valued than the shorter life.¹⁶

In the light of this, it appears that, under the I1 account of the Stoic discipline of desires, the duration of life has a *purely instrumental value*: the duration of life is valued only insofar as this allows the person to carry out acts that are more valuable during her life.

 $^{^{16}}$ That specific case is the one studied by Seneca in On the Shortness of Life (see Section 2). If the person wastes her time in pursuing things that are not under her control (e.g. social reputation), additional life-years do not make her life better, and, hence, are valueless.

Proposition 1 Under the I1 account of the Stoic discipline of desires, the duration of life has a purely instrumental value.

Proof. See above.

Once formalized by means of the I1 account of the Stoic discipline of desires, the Stoic thesis of the neutrality of death does not imply that the duration of life has no value, but, only, that the duration of life has *no intrinsic value*: the duration of life matters only as an instrument in order to carry out acts that are more valuable.

This corollary of the I1 account is in line with Seneca's analysis of the value of life: time is a scarce resource that humans should not waste, and only the wasted time has no value at all, but not all life-periods (see Section 2). Death is thus 'neutral' in the precise sense that longevity has no intrinsic value, but only an instrumental value. The goodness of a life will depend on how that resource is used, but the resource in itself has no value per se.

This purely instrumental value of longevity can also find some direct support in Epictetus's *Dialogues* (*Dialogues*, book A3, XX):

In the case of appearances, which are objects of the vision, nearly all have allowed the good and the evil to be in ourselves, and not in externals. No one gives the name of good to the fact that it is day, nor bad to the fact that it is night, nor the name of the greatest evil to the opinion that three are four. But what do men say? They say that knowledge is good, and that error is bad; so that even in respect to falsehood itself there is a good result, the knowledge that it is falsehood. So it ought to be in life also. "Is health a good thing, and is sickness a bad thing" No, man. "But what is it?" To be healthy, and healthy in a right way, is good: to be healthy in a bad way is bad; so that it is possible to gain advantage even from sickness, I declare.

In sum, if one adopts the I1 account of the Stoic discipline of desires, the duration of life has no intrinsic value: it makes a life good only insofar as this allows the person to carry out acts that are more valuable during her life. From that perspective, the duration of life is like a neutral 'container', which is valued only if it 'contains' acts that are more valuable. In other words, the goodness of a life depends on whether or not the person is able to include more valuable acts in the neutral 'container', and is affected by the size of the 'container' only insofar as this size allows for the inclusion of acts that are more valuable.¹⁷

The value of life under the I2 account of the discipline of desires Let us now compare these results with the ones obtained under the I2 account of the Stoic discipline of desires. Following the I2 account, we will focus here on the comparison of lives that are regarded by the person as the best lives

 $^{^{17}}$ Note that what can be counted as a 'valuable act' depends on the Stoic discipline of acts. Acts are valuable if and only if they serve the Common Good (see Section 2).

under distinct life-circumstances. For that purpose, let us consider Table 2, which compares five distinct lives. Suppose that, under a life of duration d, the life-act a is the best that the person can carry out, so that the person prefers the life-act a over the life-act a', which implies that life w is preferred to life y: $(w, y) \in P(R)$. Suppose now that, under life duration d' (which exceeds d), the person considers the life-act a'' to be the best life-act that the person can carry out. She thus prefers, under life duration d', the life-act a'' over life-acts a and a'. We then have that life v is preferred to lives x and z: $(v, x) \in P(R)$ and $(v, z) \in P(R)$. In that example, the increase in the duration of life allows the person to carry out a life-act a'' instead of a life-act a, the former acts being considered as more valuable than the latter ones.

	Life-circumstances	
Life-acts	c (a life duration d)	c' (a life duration d')
a	w = (a, c)	x = (a, c')
\mathbf{a}'	y = (a', c)	z = (a', c')
a"	does not exist	$v = (a^{"}, c^{"})$

Table 2: Valuing lives of unequal durations.

According to the I2 account of the Stoic discipline of desires, 'indifference to indifferent things' here means that the person should be indifferent between the lives that are the best under each life-circumstance. We should thus have indifference between lives w and v, that is, $(w, v) \in I(R)$. But this indifference relation implies that the possibility to carry out acts a'' instead of acts a thanks to a longer life is not valued by the person, because the two resulting lives are considered to be equally good. As a consequence, there is here no instrumental value for the duration of life.

The intuition behind that result goes as follows. Under the I2 account of the Stoic discipline of desires, what matters is to make the best of prevailing life-circumstances, that is, to take life by the 'good handle'. The only thing that matters for the goodness of a life is to carry out the acts that are the most valuable given the prevailing life-circumstances. From that perspective, an extension of the duration of life has no extra value for the person, as long as she does the best she can under each possible duration of life. Thus the duration of life has here neither intrinsic value nor instrumental value.

Proposition 2 Under the I2 account of the Stoic discipline of desires, the duration of life has neither intrinsic value, nor instrumental value.

Proof. See above.

Under the I2 account of the Stoic discipline of desires, the duration of life is valueless. Having a larger 'container' does not matter here, even if that larger 'container' allows the person to carry out acts that are more valuable during her (longer) life. The reason is that the goodness of a life only requires harmony with circumstances, in line with the overall goal of Stoicism as promoting a life 'in accordance with Nature'. As a consequence, accumulating acts that are more (or less) valuable into a larger 'container' does not make a life better (or worse). Acts matter only insofar as these are the best possible acts under the prevailing circumstances, that is, only insofar as these yield harmony with circumstances. Thus longevity is here neutral in a strong sense.

When comparing Propositions 1 and 2, it appears that the implications of the Stoic discipline of desires concerning the value of life are not robust to the particular way in which the Stoic discipline of desires is translated into the language of economics. When the 'indifference to indifferent things' is formalized as indifference between lives that differ only on life-circumstances, the duration of life has a purely instrumental value. However, when the 'indifference to indifferent things' is formalized as indifference between lives that are the best under each life-circumstances (in line with the handles metaphor), longevity has neither instrumental value, nor intrinsic value.

In sum, considering that the duration of life is out of control can have different implications for the value of life, depending on the particular economic interpretation of the Stoic discipline of desires (I1 or I2 account). Whereas the formalization of the Stoic discipline of desires as a requirement of indifference between lives that differ only on life-circumstances implies that the duration of life has a purely instrumental value (i.e., is a 'neutral container'), modelling the Stoic discipline of desires as a requirement of indifference between lives that are the best under each life-circumstances implies that the duration of life has, from a Stoic perspective, no value at all.

5 Conclusions

The goal of this paper was to build an analytical bridge between how Stoic philosophers thought about the evil of death, and how modern economists think about the badness of having a short life. For that purpose, our starting point was the writings of Epictetus, Seneca and Marcus Aurelius, who argued that persons should not be afraid of dying, because death does not harm the person. We explained how the Stoic thesis of the neutrality of death is rooted in the Stoic discipline of judgements (the duration of life is out of control) and in the Stoic discipline of desires (longevity being out of control, one should not desire a longer life). In a second stage, we tried to 'translate' the Stoic thesis of the neutrality of death into the language of economics, by examining its implications for the structure of preferences. This translation was carried out while assuming that the Stoic discipline of desires requires extending the symmetric factor of the preference relation, so as to yield 'indifference to indifferent things'.

What can be learnt from all this?

A first lesson to be drawn is that, contrary to what one may believe at first glance, Stoicism does not necessarily imply that the duration of a life is valueless. Acknowledging that the duration of life is a circumstance for the person, i.e., something on which she has no control, does not necessarily imply that the duration of life has no value. Actually, our analyses suggest that this may be true under some economic interpretations of the Stoic discipline of desires, but that this is not necessarily the case. Under the I1 account of the Stoic discipline of desires (requiring indifference between lives that differ only on lifecircumstances), the duration of life has a purely instrumental value: it matters only insofar as this allows persons to carry out acts that are more valuable during their life. Under the I2 account of the Stoic discipline of desires (requiring indifference between lives that are the best under each life-circumstance), the duration of life is valueless: it has neither intrinsic, nor instrumental value.

A second lesson to be drawn is that the precise sense in which the duration of life is regarded as *neutral* from a Stoic perspective varies across the accounts of the Stoic discipline of desires. Under the I1 account of the Stoic discipline of desires, longevity is neutral in the sense that it is like a neutral 'container', which has no value *per se*, no intrinsic value. The associated concept of 'neutrality' can thus be regarded as a weak form of 'neutrality'. However, under the I2 account of the Stoic discipline of desires, the duration of life is neutral in the sense that longevity has neither intrinsic value, nor instrumental value. That second sense of 'neutrality' is much stronger than the first one. The non-equivalence between these two concepts of 'neutrality' highlights the importance of the postulated account of the Stoic discipline of desires, that is, the way in which we formulate the requirement of 'indifference to indifferent things'.

All in all, this study points to the richness of Stoic intuitions concerning the value of life. Far from being necessarily valueless, a longer life could, from a Stoic perspective, be regarded as a valuable instrument for achieving a better life, provided the larger duration of life (taken as a neutral 'container') allows the person to carry out acts that are more valuable. At the methodological level, this analysis points to another richness of Stoicism: variants in the economic interpretation of the Stoic discipline of desires can yield a large variety of Stoic attitudes towards the value of life. Far from narrowing down the analysis of the badness of death, Stoicism forces us to consider a wide variety of points of view on this issue. As such, this Ancient tradition of thought brings a major contribution to the modern economic analysis of the value of life.

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