Calibrating intellectual property: let's not get lost in metaphysics

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Introduction

Despite the longstanding consensus on the economic and natural rights justifications for intellectual property rights, legal doctrine still struggles to translate these justifications into more detailed guidelines on calibrating these rights[2]. There is, for example, considerable agreement that an intervention of copyright is both to avoid market failure caused by the positive externalities of creating 'works' and to protect the natural rights of authors to the fruits of their labour. However, this consensus does not prevent debates on the degree of control which copyright is to grant the right holder over, *inter alia*, the distribution and the use of embodiments of his copyright protected 'work[3]'.

This paper puts forward that better insights into how intellectual property rights intervene at the level of perceptible acts and things also allows the following: more detailed instructions on how to calibrate the intervention of intellectual property rights in accordance with their economic and natural rights justifications. To this end, it is more in particular defended here to abandon the prevailing wisdom that intellectual property rights intervene by granting a power over the autonomous, mental reality of an 'immaterial good'. Rather, it is proposed here to analyse intellectual property rights as dictating certain archetypical analyses to give guidance on letting them do the following: burden certain perceptible things with *erga omnes* working 'intellectual servitudes' which grant the right holder a power over a particular slice of the possible perceptible acts concerning these perceptible things. So, in essence, the proposition defended here is that this alternative analysis of the *instrument* of intellectual property rights intervention helps to give more precise instructions on how to deploy this *instrument* to achieve the *goals* which intellectual property rights are to pursue, according to their economic and natural rights justifications.

The approach taken here to substantiate the proposition just mentioned involves three steps. First (1.), the accepted economic and natural rights justifications for intellectual property rights are analysed as follows: in terms of expecting intellectual property rights intervention to achieve certain *goals*. Secondly (2.), a description is given of the overarching, dominant logic which is applied to calibrate and apply the *instrument* of intellectual property rights intervention, in order to let it achieve its *goals*, in accordance with its natural rights and economic justifications. Thirdly (3.), an alternative logic in this regard is developed which builds on the abovementioned alternative analysis of how the *instrument* of intellectual property rights intervention works. Finally (4.) this alternative logic is contrasted with the prevailing logic on calibrating intellectual property rights.

1. Justifications for an intervention of intellectual property rights

As mentioned, there is a longstanding, considerable consensus with regard to the economic and natural rights justifications for intellectual property rights, such as copyright, patent law, the *sui generis* database right, etc.. Important here is that these justifications also imply that intellectual property rights are expected to achieve certain goals.

Natural rights considerations, in essence, expect intellectual property rights to coordinate behaviour in a way that has people comply with their duty to respect the natural rights of other people[4]. In fact, the main natural rights argument to have intellectual property rights grant a person exclusive rights to control perceptible acts concerning the embodiments of his result of labour, is that this gives this person a suitable instrument to command respect for his natural right to the fruits of his labour[5]. However, important in this connection is that the overarching goal of a coordination of behaviour in accordance with natural rights considerations, also requires this: that intellectual property rights refrain from granting a right holder such exclusive rights which allow him to prevent perceptible acts of others, if such a grant would amount to a failure to respect the natural rights of these others[6].

Economics, on the other hand, usually require intellectual property rights to intervene and coordinate behaviour, to the extent that, on its own, the market will fail to achieve the following: a coordination of behaviour concerning embodiments of results of labour in a way that maximises welfare, *i.e.* in a way that people are incited to use all scarce resources in the way in which these resources provide the greatest gratification of needs[7].
In light of this aim of remedying market failure, the main economic argument to have intellectual property rights is more specific that without them the market will not result in a welfare maximising coordination of behaviour, for lack of exclusive rights able to avoid that the production of certain results of labour, such as 'works' and 'inventions', has 'positive externalities[8]'. Such positive externalities refer to those effects of a person's behaviour, his use of resources, which have a direct, positive influence on the capacity of resources to satisfy needs, but which do not influence his decision on performing this behaviour, because he does not experience these effects when it comes to his resources satisfying his needs[9]. Such positive externalities will for example arise if a designer does not experience any positive effect of the fact that his labour of thinking up the design of a chair does not only have the capacity to make chairs look good which have actually been crafted and sold by him. In view of coordinating behaviour in a way that incites people to use resources in a welfare maximising way, such positive externalities are a problem. The reason is that they imply that a person will not get an incentive to behave in a way in which he uses resources to their full potential to satisfy needs[10].
To avoid such positive externalities standing in the way of a welfare maximising coordination of behaviour, markets, in principle, rely on having every use of all resources, controlled by transferable exclusive rights which ensure their right holder the following: that the only way for other persons to ever enjoy the use of this resource – also in terms of the effects of this use on the capacity of resources to satisfy needs – is a voluntary exchange with him, in which they acquire the exclusive rights over the resource or its desired use, in return for paying a price[11]. The clue here, in view of coordinating behaviour, is that, having such exclusive rights, implies that the demand which others have for enjoying the positive effects of a person's use of his resources, on the capacity of resources to satisfy needs, will always be reflected in this: a market price for enjoying these positive effects which will make the person capable of causing these positive effects by using his resources, take into account, 'internalise', how others value these effects when he decides how to use his resources[12].
To have exclusive rights which fulfil the abovementioned requirements to avoid positive externalities specifically in relation to producing certain results of labour, such as 'works' or 'inventions', economics then usually see a suitable instrument in the following: intellectual property rights that grant a person exclusive rights which result in letting this person control perceptible acts concerning the embodiments of his result of labour[13]. The idea, in essence, is that such exclusive rights can offer the right holder a control over those perceptible things which have benefitted from the positive effects of producing his result of labour on the

capacity of resources to satisfy needs, which is a sufficient control to ensure the right holder the following that is crucial to avoiding positive externalities: that the only way for other persons to ever enjoy these positive effects, consists of a voluntary exchange with him in which they acquire exclusive rights relating to such a perceptible thing that benefits from these effects[14]. However, according to economics, the abovementioned, overarching goal of a welfare maximising coordination of behaviour, also requires this: that intellectual property rights refrain from granting a right holder exclusive rights, if this would enable him to prevent acts which would actually let resources achieve the greatest gratification of needs[15].

2. The dominant approach to calibrating intellectual property rights

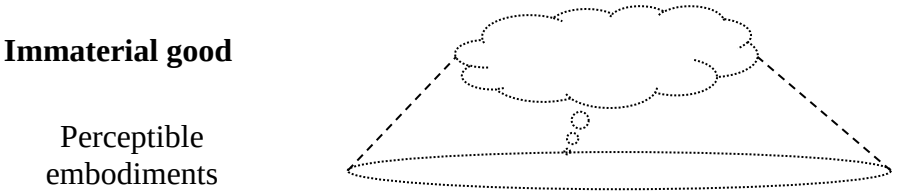
As mentioned, it has been repeatedly pointed out that it is not easy to translate the economic and natural rights justifications for intellectual property rights into guidelines on a more practical level, *i.e.* guidelines able to pinpoint the actual perceptible things and acts which these justifications expect these rights to reserve to the relevant right holders[16]. However, confronted with actual facts and cases, lawmakers, judges and legal scholars are nevertheless forced to make such practical decisions. In the following, the overarching, dominant logic is discussed which they usually apply to make these practical decisions on calibrating the intervention of intellectual property rights. In this regard, special attention goes to the way in which this logic is influenced by the prevailing analysis on how intellectual property rights intervention works. Therefore, the following starts off with (2.1.) outlining the dominant analysis on the 'mechanics', *i.e.* the functioning, of intellectual property rights intervention. Then (2.2.), a description is given of the prevailing logic with regard to calibrating intellectual property rights intervention.

2.1. Prevailing analysis on the 'mechanics' of intellectual property rights intervention

Prevailing wisdom relies on a theory on 'immaterial goods' to explain how intellectual property rights intervene. This theory states that intellectual property rights grant a right holder an exclusive right over the mental reality of a particular 'immaterial good' which also implies an exclusive power to control those perceptible acts concerning embodiments of this 'immaterial good' of which the performance can be taken to touch upon this 'immaterial good[17]'. For example, if a person's intellectual creation in writing a novel gives rise to copyright protection, this theory takes copyright to, in fact, do the following: grant this person an exclusive right over his 'work', *i.e.* the mental reality of the 'immaterial good' ensuing from his intellectual creation, more in particular, an exclusive right from which this person also derives a power to control perceptible acts concerning embodiments of this 'work' of which the performance can be taken to touch upon this 'work', such as 'reproducing' a copy of the novel. Distinctive of such 'immaterial goods', according to this theory, is that they constitute an autonomous mental reality in relation to the perceptible reality of their embodiments. This autonomy is taken to imply that the existence and features of such an 'immaterial good', first of all, remain unaffected by events that only touch upon the perceptible reality of its embodiments and, secondly, cannot be reduced to the existence and features of its particular embodiments[18].

Within dominant legal theory, this theory on 'immaterial goods' is taken to be indispensable to explain intellectual property rights intervention[19]. Accepting that the autonomous mental reality of an 'immaterial good' is the actual 'object' of the exclusive right which an intellectual property right grants the right holder, is especially believed to be essential to account for the following: the fact that this right holder can call upon this intellectual property

right to control certain perceptible acts concerning an embodiment of his result of labour, for example to control 'reproducing' this embodiment, even after having transferred his real property rights over this embodiment. In this connection, it is more in particular taken to be crucial that the concept of an 'immaterial good' makes it possible to state that the act of transferring real property rights over a particular embodiment of the 'immaterial good' does *not* touch upon the mental reality of this 'immaterial good'. This then in turn makes it possible to assume that this act of transferring real property rights over this embodiment does not affect the right holder's exclusive right over his 'immaterial good' nor the power which he derives from this exclusive right to control perceptible acts concerning this embodiment that *do* touch upon this 'immaterial good' (e.g. the act of 'reproducing' this embodiment)[20].



Although this theory on 'immaterial goods' gives a theoretically valid explanation of how intellectual property rights intervene, it does pose the law with a considerable challenge in the domain of metaphysics[21]. This theory forces the law to contemplate the existence and features of an independent mental reality, however, without giving much guidelines on how the reality of perceptible things – on which humans still depend to gain any knowledge on this mental reality – can serve as a base to draw conclusions on the existence and features of a particular 'immaterial good[22]'. For example, when it comes to deciding whether a particular perceptible thing embodies the 'immaterial good' that motivated an intellectual property right's grant of protection, the theory on 'immaterial goods' gives us fairly little to go on. On the contrary this theory emphasises that an 'immaterial good' is not to be reduced to one of its embodiments. Also, this theory does not provide principled criteria to decide whether a particular perceptible act concerning an embodiment of an 'immaterial good' is to be taken to touch upon this 'immaterial good[23]'. In practice, this question is usually avoided by simply accepting that the perceptible acts which touch upon the 'immaterial good' are the ones which the regulation on the relevant intellectual property right mentions as being reserved to the right holder.

2.2. Dominant logic on calibrating intellectual property rights intervention

For its guidelines on calibrating intellectual property rights intervention, the dominant logic can usually be found to rely on the following: analysing the merits and shortcomings of granting right holders exclusive rights over their 'immaterial goods', in view of coordinating behaviour in accordance with economic and natural rights considerations[24].

In this regard, this dominant logic typically puts forward that granting right holders exclusive rights over every use of their 'immaterial goods', in principle, has the merit of being a suitable intervention to avoid that the following stands in the way of a coordination of behaviour in accordance with economic and natural rights considerations: positive externalities of producing 'immaterial goods' or creators of 'immaterial goods' lacking adequate means to command respect for their natural rights to the fruits of their labour[25]. To substantiate this view, this logic tends to rely on the following arguments. A first argument is that the use of an 'immaterial good' through use of its embodiments is a good point of reference to trace people using the positive effects and the fruits of creating the 'immaterial good[26]'. A second, often implicit argument is that, in principle, legal intervention is to grant the right holder actual

control over every instance of enjoyment of what can be considered to be the positive effects or the fruits of creating his 'immaterial good', for this legal intervention to achieve an adequate internalisation of these positive effects and an adequate protection of the natural rights to the fruits of this result of labour[27]. A third argument is that a system of real rights, which can typically grant a person but a power to control perceptible acts concerning one specific perceptible thing at the time, does *not* offer the creator of an 'immaterial good' an instrument to make the following dependent on his consent: other people making and using embodiments of his 'immaterial good' in perceptible things over which this creator has not acquired real rights and these other people, thus, enjoying the positive effects and the fruits of his efforts to create this 'immaterial good[28]'. These arguments put together then usually lead to the abovementioned conclusion that, to achieve the goal of avoiding positive externalities and avoiding an inadequate protection of peoples natural right rights to the fruits of their labour, it is, in principle, appropriate to let intellectual property rights grant a right holder an exclusive right over every use of his 'immaterial good' that takes place through using its embodiments. Often, support for this conclusion is drawn from the observation that it constitutes a mere apt transposition of the same basic solution which also real property rights rightly apply to achieve this same goal in relation to perceptible goods: grant the right holder an exclusive right over every use of the perceptible good[29]. Important to note in this regard is also that the dominant logic usually tends to estimate the abovementioned merit of the intervention of intellectual property rights to be higher, as the 'immaterial goods' which this intervention stimulates and grants protection for are taken to have a greater capacity to satisfy needs or to be more deserving or more in line with conceptions of the 'good[30]'.

In a second phase, however, the dominant logic typically also notes that granting right holders exclusive rights over every use of their 'immaterial goods' can have significant shortcomings in view of achieving an overall coordination of behaviour in accordance with economic and natural rights considerations. From a natural rights point of view, the dominant logic usually observes that granting the right holder such exclusive rights, has a great potential of hindering other people in exercising their natural rights, for example, their freedom to offer similar, competing goods[31]. In light of economic considerations, this dominant logic often points out that such broad exclusive rights are likely to prevent other people from performing acts which would actually let resources achieve the greatest gratification of needs. The reasoning in this regard is that such exclusive rights over all perceptible things which can be taken to be an embodiment of the 'immaterial good' concerned, are likely to put the right holder in a position to demand monopoly prices for these embodiments and their use[32]. These monopoly prices are then taken to result in underuse of these embodiments[33] and possibly in unduly drawing away resources from being invested in the production of goods for which producers only receive competitive prices[34]. In this regard, the prevailing logic usually reasons that the shortcomings of intellectual property intervention, both from a natural rights as an economic perspective, will be greater, as there are viewer substitutes for the perceptible things and acts which the intellectual property right reserves to the right holder[35].

The analysis just described then usually leads the dominant logic to propose the following guideline on calibrating intellectual property rights intervention: let these rights grant right holders an exclusive right over their 'immaterial goods' which implies a power to control perceptible acts concerning embodiments of these immaterial goods, to the extent that, judged from an economic and natural rights perspective, the merits of this intervention outweigh its shortcomings[36]. Important to note here is that, in this guideline, the dominant logic in fact introduces a balancing exercise. This balancing exercise is aimed at systematically adjusting the level of intellectual property protection which this logic in principle takes to be essential

to adequately internalise positive effects and protect people's natural rights to the fruits of their labour relating to 'immaterial goods', more in particular, an adjustment to compensate for the defects of granting this level of protection in view of achieving an overall coordination of behaviour in accordance with economic and natural rights considerations. However, the dominant logic struggles to give clear guidelines on performing this balancing exercise[37]. Crucial in this is that it has proven problematic to come up with an exhaustive mapping and precise weighing of the effects, more specific the merits and shortcomings, of granting a particular level of intellectual property protection for particular results of labour[38]. Also, this dominant logic gives little guidance on whether the level of intellectual property protection targeted as a result of the balancing exercise is best to be achieved by fine tuning the grant of protection or by delimiting the exclusive right granted, be it at the level of its object or at the level of the power which it provides the right holder over this object.

3. An alternative approach to calibrating intellectual property rights

From the above, it follows that the dominant logic on calibrating intellectual property rights intervention is not ideal. Therefore, it is proposed here to rely on an alternative logic in this connection. Key to this alternative logic is, as mentioned, a differing analysis on how intellectual property rights intervention works. Therefore (3.1.), this differing view on the 'mechanics' of intellectual property rights is discussed before (3.2.) elaborating the proposed alternative logic to calibrate intellectual property rights intervention in accordance with economic and natural rights considerations.

3.1. Differing analysis of the 'mechanics' of intellectual property rights intervention

To explain intellectual property rights intervention it is defended here to adhere to a theory on 'intellectual servitudes'. As mentioned, this theory analyses intellectual property rights as dictating certain typical analyses to give guidance on letting them do the following: burden certain perceptible things, instantly as they come into existence, with *erga omnes* working 'intellectual servitudes' that grant a right holder an exclusive right over certain perceptible acts concerning these perceptible things, that together form the object of this exclusive right[39].

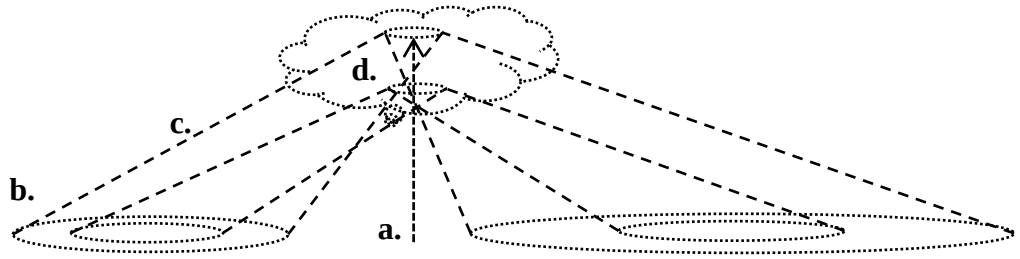
First of all, this theory on 'intellectual servitudes' is taken to provide an account of how intellectual property rights intervene, that is at least as valid as the explanation put forward by the abovementioned theory on 'immaterial goods'. This theory on 'intellectual servitudes' will have no problem, for example, to explain that a right holder can call upon his intellectual property right to control certain perceptible acts concerning an embodiment of his result of labour, even after having transferred his real property rights over this embodiment. To explain this, this theory more in particular relies on the *erga omnes* working character of the 'intellectual servitudes' with which intellectual property rights burden certain perceptible things. The fact that these 'intellectual servitudes' which burden these perceptible things work *erga omnes*, *i.e.* are opposable to all, implies that also the acquirer of real rights over such a perceptible thing has to respect that a slice of the possible perceptible acts concerning this perceptible thing is reserved to the intellectual property right holder.

Secondly, this theory on 'intellectual servitudes' is taken to give a far better explanation of how intellectual property rights intervention can be calibrated to appropriately take into account all relevant circumstances, both, those relating to perceptible features of acts and things, as those relating to, phenomena which are beyond the reach of empirical analyses,

such as performing intellectual labour and the experiences within people's consciousness that a result of labour can evoke by means of its embodiments. The reason for this is that this theory attaches much more attention to this matter, more in particular, when it analyses intellectual property rights as dictating typical analyses to steer their intervention.

In this connection, the first typical analysis, which the theory on 'intellectual servitudes' takes intellectual property rights to dictate, is a specific 'comparison of differences' to decide on the grant of their protection. This specific 'comparison of differences' is governed by four parameters, which receive their settings from the relevant provisions and principles found in the different intellectual property rights:

a) the **sort of perceptible features** (e.g. features incorporating the selection or arrangement of 'elements[40]') **which a relevant reference incorporation** (e.g. a 'database[41]') has to owe to a result of labour to be eligible for an assessment on the grant of protection – regardless, at this point, whether these features can substantiate to ensue from the efforts required for the grant of protection –
b) the features which a perceptible thing must have to belong to the **relevant reference group** for the decision on granting protection for a particular result of labour (e.g. the feature of being known to the person who arrived at this result of labour, at the time of performing the labour to do so[42])
c) the **differences** which have to exist between, on the one hand, the relevant perceptible features of the relevant reference incorporation which ensue from the result of labour being assessed and, on the other hand, the perceptible features found in the relevant reference group, more in particular, to substantiate that this result of labour demanded the efforts required for the grant of protection (e.g. differences substantiating the required 'own intellectual creation[43]')
d) the **level of abstraction** at which it is relevant for the grant of protection, that the relevant reference incorporation and the relevant reference group show the differences just mentioned which are able to substantiate the efforts required for the grant of protection. (e.g. the level of abstraction of a perceptible form or of an idea that is developed to be applied in specific features of perceptible things or acts[44])

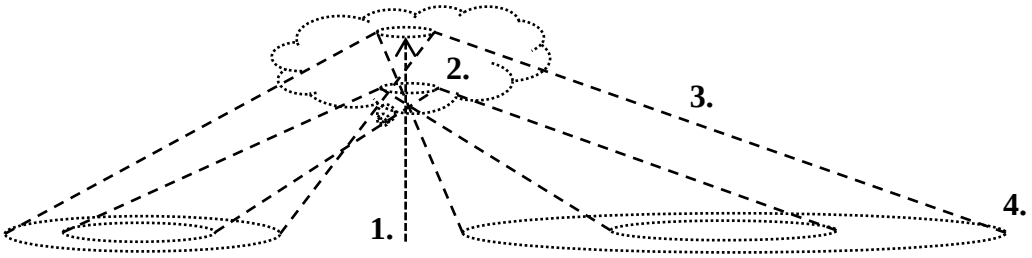


In fact, the theory on 'intellectual servitudes' takes it that every intellectual property right requires us to decide on the grant of their protection by verifying the following: whether, judged at the relevant level of abstraction, the relevant perceptible features which a relevant reference incorporation owes to a person's result of labour, show sufficient, relevant differences to the features of the relevant reference group, to make it plausible that making this reference incorporation took the efforts, *i.e.* the sort of result of labour, for which this intellectual property right grants protection.

The second typical analysis which intellectual property rights require, according to the theory on 'intellectual servitudes', is a specific 'comparison of resemblances' aimed at delimiting the object of the exclusive right which they grant a right holder. This specific 'comparison of

resemblances' is again governed by four parameters, that get their settings from the relevant provisions and principles found in the different intellectual property rights:

1.) the relevant perceptible **reference features**, within a relevant reference incorporation of the protection motivating result of labour, which form a suitable point of reference to delimit the object (e.g. perceptible features able to substantiate someone's 'own intellectual creation[45]')
2.) the **level of abstraction** at which to conduct a comparison, for the purpose of delimiting the object, between the perceptible features of a perceptible thing and the relevant reference features of the relevant reference incorporation of the protection motivating result of labour (e.g. the level of abstraction of a perceptible form or of an idea that is sufficiently developed to be applied in the specific features of perceptible things or acts[46])
3.) the **resemblances** which have to exist, judged at the relevant level of abstraction, between the perceptible features of a perceptible thing and the relevant reference features of the relevant reference incorporation of the protection motivating result of labour, for this perceptible thing to be able to fall within the 'object'. (e.g. 'subtantial similarities[47]')
4.) the factors influencing the **actual relevance** of sufficient resemblances, at the relevant level of abstraction, between the perceptible features of a perceptible thing and the relevant reference features of the relevant reference incorporation of the protection motivating result of labour, for this perceptible thing to fall within the 'object'. (e.g. whether resemblances result from copying as opposed to independent creation[48])



More in particular, the theory on 'intellectual servitudes' takes it that intellectual property rights ask us to delimit the perceptible things falling within the object of the right holder's exclusive right, by verifying the following: whether, judged at the relevant level of abstraction, the resemblances between the perceptible features of a perceptible thing and the relevant reference features of the relevant reference incorporation of the protection motivating result of labour, can *in concreto* be taken to substantiate that this perceptible thing owes its capacity to provide enjoyment of certain experiences to this protection motivating result of labour.

The third analysis which intellectual property rights are taken to dictate, is a typical analysis on the role of perceptible acts in giving rise to or continuing consumption chains. In this regard, the theory on 'intellectual servitudes' takes it that the provisions and principles on the categories of acts which an intellectual property right reserves to the right holder (e.g. 'reproducing[49]') are to be understood as follows: as references to perceptible acts which, performed on perceptible things that fall within the object of the right holders exclusive right, play certain roles in giving rise to or continuing consumption chains concerning experiences owed to the right holder's protection motivating result of labour.
In the context of this analysis a consumption chain refers to a sequence of perceptible acts characterised by having the following features:

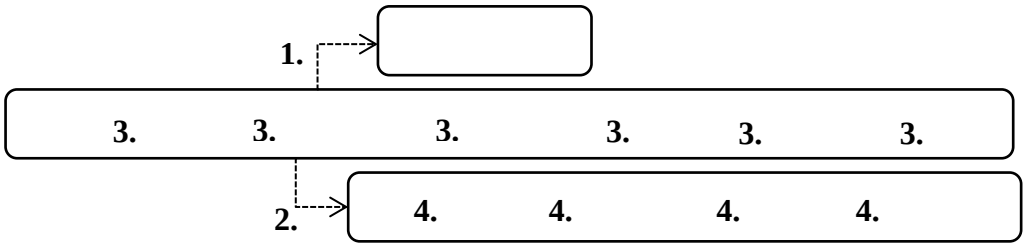
1. these acts are performed successively concerning a perceptible thing over which factual power was initially handed over with a person's consent and which owes perceptible features to this person's result of labour that allow it to provide an enjoyment, *within* specific spatial and temporal limits, of experiences made possible by this person's result of labour and
2. these acts being performed on this perceptible thing merely contribute to or result in the enjoyment of these experiences owed to this person's result of labour, *within* the specific spatial and temporal limits of the possible enjoyment of these experiences, through using only this perceptible thing with the perceptible features it had when factual power over it was initially handed over with that person's consent[50].

In this connection, the *spatial* limits of the enjoyment of experiences by using a particular perceptible thing refer to the area in which the use of only this perceptible thing, given the location and perceptible features of this perceptible thing, allows an enjoyment of these experiences. For example, the spatial limits of the enjoyment of experiences owed to a sculptural 'work', by using a specific marble statue which embodies this 'work', are given by the area in which this specific marble statue, without further intervention, can be perceived by people who are within visual range of it. The *temporal* limits, then, of the enjoyment of experiences by using a specific perceptible thing denote the period of time during which the use of only this perceptible thing, given the perceptible features of this perceptible thing, allows an enjoyment of these experiences. For example, the temporal limits of the enjoyment of experiences owed to a musical work by using a specific radio signal embodying it, are given by the period of time between this signal being sent and fading away into static, in which this signal can make the musical work audible[51].
This concept of a consumption chain can be illustrated by giving the example that a particular consumption chain concerning experiences which a painting owes to the labour of thinking up its composition, can consist of, amongst others, the following perceptible acts concerning this painting: shipping it to a retailer, displaying it in a gallery, selling it to a customer, this customer looking at it at home, this customer reselling it to another person, this other person looking at it in his home, etc.. Duplicating the painting, however, will give rise to a new consumption chain concerning experiences owed to thinking up the painting's composition, to the extent that this duplication allows an enjoyment of these experiences *outside* the specific spatial and temporal limits of the possible enjoyment of these experiences, through using only the initial painting.

The theory on 'intellectual servitudes', more in particular, understands the categories of acts which intellectual property rights reserve to a right holder, as referring to perceptible acts that have the following, typical roles in giving rise to or continuing consumptions chains concerning experiences owed to the right holder's result of labour, more in particular, in reference to the given consumption chains concerning these experiences which are based upon the perceptible things over which factual power was initially handed over with this right holder's consent:

1.) giving rise to a new, alternative consumption chain concerning these experiences which cannot be continued if this perceptible act giving rise to it has stopped (e.g. the act of singing a song)
2.) giving rise to a new, alternative consumption chain concerning these experiences which can be continued even after if this perceptible act giving rise to it has stopped (e.g. the act of making a paper poster of a painting)

3.) continuing the given consumption chain concerning these experiences by circulating or using a perceptible thing that was initially handed over with the right holder's consent (e.g. reselling or reading a copy of a novel initially sold by the right holder)
4.) continuing an alternative consumption chain concerning these experiences by circulating or using a perceptible thing that was *not* initially handed over with the right holder's consent (e.g. selling or reading copies of the right holder's novel that were made without his permission)



3.2. Alternative logic on calibrating intellectual property rights intervention

The abovementioned, differing analysis of the 'mechanics' of intellectual property rights then also encourages developing an alternative logic on calibrating intellectual property rights intervention. More in particular, this differing analysis does so by clearly pointing out that calibrating the *instrument* of intellectual property rights intervention is in fact all about the following: translating the *goals* which an intervention of intellectual property rights is to achieve according to their natural rights and economic justifications into a result to be attained in terms of reserving a right holder certain perceptible acts concerning a group of perceptible things showing resembling perceptible features amongst them. Building on that insight, developing this alternative logic is elaborated here in three steps: (3.2.1.) giving a conceptual definition of this result to be achieved by intellectual property rights, (3.2.2.) establishing practical criteria to calibrate intellectual property rights intervention so as to achieve this conceptually defined result and (3.2.3.) giving guidelines on actually calibrating the intervention of intellectual property rights to appropriately take into account these criteria.

3.2.1. A conceptual description of the result to be achieved

A first step then, in conceiving such an alternative logic on calibrating intellectual property rights intervention, is to translate the abovementioned *goals* which these rights are to pursue, according to natural rights and economic considerations, into this: a conceptual description of a result which the intervention of intellectual property rights is to achieve in terms of reserving a right holder certain perceptible acts concerning a group of perceptible things that show resembling features amongst them.

Reasoning from a natural rights perspective, the proposition defended here is that the abovementioned translation is to conclude that intellectual property rights are to focus on achieving the following result: grant the right holder an exclusive right over perceptible acts concerning perceptible things which owe their capacity to provide enjoyment of certain experiences to his result of labour, be it, merely to the extent that granting such a power is necessary for the right holder to have a power to avoid others from 'stealing' the labour that went into creating this result of labour. In this regard, the notion of 'stealing' someone's labour is taken to refer to appropriating this labour without his consent, by applying it and possibly reaping the fruits from it. Also, it is taken that the 'necessity' of granting a power

based on intellectual property rights to prevent such 'stealing', is to be assessed in reference to possibilities to prevent such 'stealing' by means of granting less power based on intellectual property rights or by means of real property rights.
This proposition gives legal intervention a limited task in protecting a person's natural rights to the fruits of his labour. More in particular, this proposition does not follow conventional views which, as indicated, often appear to assume that, in principle, natural rights considerations expect intellectual property rights to have the *effect* of granting the right holder a control over every instance of enjoyment of what can be considered to be the fruits of the labour that went into creating the result of labour. Rather, this proposition believes that it is sufficient, according to natural rights considerations, if intellectual property rights merely prevent that the right holder who wants to reap the fruits of his result of labour, is confronted with this: perceptible acts which fail to respect his natural right to the fruits of his result of labour, on the basis of these acts being objectionable *per se,* namely for not complying with ethical duties such as 'thou shalt not steal'. Compared to granting the right holder broad exclusive rights to let him control all enjoyment of the fruits of his result of labour, this approach is thought to be better suited to take into account that intellectual property rights often have to intervene in situations where several people can claim natural rights.

Applied, then, to the economic goal of aiding markets in achieving a welfare maximising coordination of behaviour, it is defended here that the abovementioned translation of goals is to conclude that intellectual property rights are to focus on achieving the following result: grant the right holder an exclusive right over perceptible acts concerning perceptible things which owe their capacity to provide enjoyment of certain experiences to his result of labour, be it, merely to the extent that granting such a power is necessary for the right holder to have a power to prevent others from, without his permission, enjoying the positive effects of creating this result of labour, on the capacity of resources to satisfy needs. Again, it is proposed here, that the 'necessity' of granting this power, based on intellectual property rights, to prevent such positive externalities, is to be assessed in reference to possibilities to prevent such externalities by means of granting less power based on intellectual property rights or by means of real property rights[52].
In giving intellectual property rights this focus on avoiding market failure caused by positive externalities, this proposition does not ignore that all causes of market failure have to be eliminated simultaneously for markets to maximise welfare[53]. Rather, this proposition believes that, given the characteristics of the instrument provided by intellectual property rights and given the whole of different bodies of law aimed at eliminating different causes of market failure, it is suitable to take the following approach: to initially calibrate the intervention of intellectual property rights to intervene, only if 'necessary' to avoid that the production of results of labour has positive externalities, and, to correct this initial calibration only to the extent that there are clear indications that, given the circumstances, avoiding market failure requires that specific correction[54]. This proposition, more in particular, defends that this initial calibration, just mentioned, requires intellectual property rights to grant exclusive powers only to the extent 'necessary' to achieve the following: that the only way for other persons to ever enjoy the positive effects of creating these results of labour, is an agreement to do so with the right holder. Note that this proposition, then also holds that there is no need for intellectual property rights to give the right holder control over instances of enjoyment of these positive effects which this right holder could in fact already make dependent on his consent. Here, letting intellectual property rights grant but carefully delineated exclusive right from the outset is taken to be preferable in view of preventing that intellectual property rights intervention turns into a cause of market failure.

3.2.3. Practical criteria to calibrate intellectual property rights intervention

A second step in elaborating the abovementioned alternative logic on calibrating intellectual property rights intervention is to establish criteria which allow the most reliable identification, in practice, of those perceptible acts concerning perceptible things showing resembling features amongst them which intellectual property rights are to reserve the right holder, according to natural rights and economic considerations. Building on the above, this calls for criteria to pinpoint those perceptible acts concerning those perceptible things showing resembling features amongst them, of which it is 'necessary' that intellectual property rights reserve them to the relevant right holder, for this right holder to have a power to appropriately avoid both 'stealing' and positive externalities relating to the labour that went into creating his result of labour.

It is argued here that the best lead then, to establish the abovementioned criteria, is a test on tracing the role of perceptible acts and things in allowing 'imitation advantage'. In this connection, cases of 'imitation advantage' refer to the fact that third parties can rely on the possibility of adopting or utilising known perceptible features and their known capacity to provide certain experiences owed to a person's result of labour, to realise the following: to let inadequate labour result in an enjoyment of these same experiences caused by similar perceptible features, *outside* of the specific spatial and temporal limits of the possible enjoyment of these experiences through using only the incorporations of this person's result of labour over which factual power was initially handed over with his consent, as they were, *i.e.* with their perceptible features, at the time of giving this consent[55]. In this description of 'imitation advantage', the characteristic of labour being inadequate, more in particular, refers to the fact that as such – without the possibility to adopt or utilise the pre-existing perceptible features and their known capacity to provide certain experiences – this labour would not be adequate to arrive at a possibility to utilise perceptible features with that capacity to provide such experiences. An example of this is the labour of copying a Rolling Stones CD with a CD-writer which, without the possibility of taking the perceptible features of the pre-existing Beatles CD, would be inadequate labour to come up with a CD capable of providing the same musical experiences. The reference, in the abovementioned description of 'imitation advantage', to the criterion of the spatial and temporal limits of the enjoyment of an experience through using a particular perceptible thing, is to be understood as building on the abovementioned analysis on the roles of perceptible acts and things in giving rise to or continuing consumption chains concerning experiences owed to a particular result of labour.

In this regard, three considerations are at the heart of the reasoning behind perceptible acts and things involving 'imitation advantage' as a reliable indicator to trace the following: perceptible acts and things with regard to which an intervention of intellectual property rights is 'necessary', for a person to have a power to appropriately avoid both 'stealing' and positive externalities relating to his result of labour.
A first consideration is that, within the concept of 'imitation advantage', the criterion concerning 'inadequate labour' can serve to reliably trace perceptible things and acts which owe their capacity to provide certain experiences, to (the positive effects of) creating a particular result of labour. More in particular, it is taken that, in the constellation of facts which characterises 'imitation advantage', the ability of a third party that adopts or utilises known perceptible features ensuing from a person's result of labour to nevertheless let such inadequate labour result in an enjoyment of the same experiences as the ones owed to this person's result of labour, reliably indicates this: that this third party appropriated (the positive effects of) the labour that went into creating that person's result of labour.

A second consideration, is that, to avoid 'stealing' and positive externalities relating to a person's result of labour, there is in fact no need for an intervention of intellectual property rights with regard to the following perceptible acts or things which, although applying (the positive effects of) this person's labour, do not involve 'imitation advantage': perceptible acts or things contributing to or resulting in an enjoyment of experiences owed to his result of labour, *within* the spatial and temporal limits of the possible enjoyment of these experiences through using only the embodiments of his result of labour over which factual power was initially handed over with his consent, as they were, *i.e.* with their perceptible features, at the time of giving this consent. The reasoning here, is that, if a person consents, without further reservations, to pass on his factual power over an embodiment of his result of labour, the following will then hold true with regard to the first category of perceptible acts and things just mentioned, regardless moreover of whether they involve duplicating or altering this embodiment: the enjoyment which these acts and things provide, *within* said spatial and temporal limits, of experiences owed to that person's result of labour will not involve 'stealing' or positive externalities. Rather this enjoyment is to be seen as the object of the transaction in which that person consented to pass on his factual power over this embodiment. After all, when giving this consent, the actual perceptible features of this embodiment allowed him to assess the spatial and temporal limits of the enjoyment of experiences owed to his result of labour which is made possible by using only this unaltered embodiment. Note that, if a person only agrees to pass on his factual power over an embodiment of his result of labour, under use restrictions which are based on contractual agreements or his real property rights concerning this specific embodiment (e.g. the condition to return him the embodiment on a given date), enforcing these contractual agreements or his real property rights concerning this embodiment, is, in principle, already sufficient to prevent perceptible acts and things of the first category just mentioned from involving 'stealing' or positive externalities. After all, the presence and use of a specific embodiment of a person's result of labour that was willingly passed on by that person – factors which can be controlled trough contractual agreements or real property rights relating to this embodiment – will *de facto* always be prerequisites for acts and things belonging to this first category to provide enjoyment of experiences owed to that person's result of labour.

Finally, a third consideration, is that, for a person to have a power to appropriately avoid 'stealing' and positive externalities relating to his result of labour, there really is a task for intellectual property rights to intervene with regard to the following category of perceptible acts and things which typically entail 'imitation advantage': perceptible acts or things which contribute to or result in an enjoyment of experiences owed to this person's result of labour, *outside* the spatial and temporal limits of the possible enjoyment of these experiences through using only the embodiments of his result of labour over which factual power was initially handed over with his consent, as they were, *i.e.* with their perceptible features at the time of giving this consent. The logic here is that without intellectual property rights, *i.e.* given only a system of real property rights, a person would have no power to avoid that this second category of perceptible acts and things just described led to an enjoyment of experiences owed to his result of labour which involved 'stealing' and positive externalities, more in particular, for reason of this enjoyment not having been dependent on, nor the object of, a voluntary transaction in which this person consented to this enjoyment. Important in this regard, is the observation that a person's consent to pass on his factual power over a specific embodiment of his result of labour cannot be taken to cover the enjoyment which that second category of perceptible acts and things allows of experiences owed to his result of labour. After all, at the time of giving this consent, this person had no real possibility to foresee within which spatial and temporal limits, this second sort of perceptible acts and things would allow such an enjoyment of these experiences.

3.2.3. Setting the parameters of the analyses that steer intellectual property intervention

A third step then consists of giving guidelines on how to set the parameters of the abovementioned typical analyses which intellectual property rights, according to the theory on 'intellectual servitudes', dictate to steer their intervention. It is beyond the scope of this contribution to elaborate this into detail for each of the different intellectual property rights. Nevertheless, an overview is given of the main guidelines to achieve an appropriate setting of those parameters in view of avoiding 'imitation advantage'. This is done for (a.) the 'comparison of differences', (b.) the 'comparison of resemblances' and (c.) the 'analysis on consumption chains'.

a. Comparison of differences to decide on the grant of protection

With regard to the parameters in the abovementioned 'comparison of differences' which intellectual property rights are taken to impose to decide on the grant of their protection, it is proposed here that each intellectual property right is, in essence, to be interpreted as setting these parameters so as to do the following: require to trace those results of labour which give rise to a risk of 'imitation advantage' which this intellectual property right – given the typical scope and delimitation of the exclusive right which it grants – is suited to neutralise with the smallest grant of power 'necessary' to do so.

On a more general level, this guideline is taken to require that intellectual property rights should only grant protection to results of *intellectual labour* as opposed to results of *manual labour*. This view builds on the observation that intellectual property rights usually steer towards delimiting the 'object' of the exclusive right which they grant, in light of the mere finding of the following fact: sufficient, relevant resemblances between the perceptible features of a perceptible thing and the perceptible features which are already acknowledged to ensue from the protection motivating result of labour. When it comes to tracing 'imitation advantage' relating to results of intellectual labour, attaching so much importance to the mere finding of such resemblances, can indeed be a sound approach. More in particular, if a person *knows* perceptible features and their capacity to provide certain experiences which actually required intellectual labour and if this person then applies sufficiently *resembling* perceptible features to provide these experiences, these resemblances can indeed be taken to indicate this: that this person relied on 'imitation advantage' with regard to the initial intellectual labour to avoid having to perform intellectual labour to arrive at perceptible features which in principle would have required intellectual labour. Important here is that this statement holds true because of a phenomenon which can be described as: the impossibility for a person to perform intellectual labour aimed at thinking up features which he already knows to exist. However, this reasoning and its implications for resemblances as an indicator of 'imitation advantage', cannot be extended to results of manual labour. After all, knowledge of perceptible features which required only manual labour does not make it impossible to then still perform labour aimed at creating these same perceptible features, which is in its own right adequate to do so.

On a more specific level, the abovementioned guideline that an intellectual property right is to grant protection only to those results of labour with regard to which it can aptly avoid 'imitation advantage', is also taken to influence this: the particular setting of the parameters of the 'comparison of differences' that is fit to identify those results of intellectual labour concerning which the intellectual property right indeed aptly avoids 'imitation advantage'.

First of all, it proposed here that the abovementioned parameter on differences should always be set to require differences which can substantiate that it took intellectual labour to make perceptible things demonstrate such differences in reference to the relevant reference group. The reasoning here is, as mentioned, that intellectual property rights are to grant protection only to results of intellectual labour and that the way in which a perceptible thing differs from existing perceptible things, as a result of embodying a result of labour, is the most objective lead to make hypotheses on this result of labour having required intellectual labour.
Secondly, it is also put forward that, in view of tracing results of intellectual labour, the parameter of the relevant reference group will only serve as a meaningful parameter within the 'comparison of differences' if it is set to let this group encompass the following: those perceptible things known by the person who arrived at the result of labour that is being assessed for its ability to motivate the grant of protection, at the time of performing the labour to arrive at this result. After all, if a person comes up with perceptible features which insignificantly differ from existing perceptible features which were unknown to him, this fact still does not allow a conclusion on the efforts of this person constituting intellectual labour.
Finally, it is also defended here that the parameter on the relevant perceptible features of a relevant reference incorporation and the parameter on the relevant level of abstraction are to be set to do the following: verify whether the result of intellectual labour identified has an application range in perceptible features of perceptible things for which the scope of protection granted by the intellectual property right is an appropriate fit to avoid 'imitation advantage'. In this connection the level of abstraction up to which perceptible features ensuing from a result of intellectual labour, do demonstrate intellectual labour substantiating differences in reference to the features found in the relevant reference group, is in fact taken to be a reliable criterion to decide on following: the level of abstraction vis-à-vis perceptible features that can constitute an appropriate lead to trace the application range of this result of intellectual labour, *i.e.* the variety of perceptible features which perceptible things can derive from this result of intellectual labour to make them suited to provide certain experiences (e.g. perceptible features embodying the same form or the same developed idea).

To be noted here is that throughout the abovementioned parameters it is each time proposed to calibrate the grant of intellectual property protection, based on a logical analysis of the problem to be addressed *in concreto*, namely 'imitation advantage'. This approach is taken to be sounder than the dominant logic's proposition to let the grant of protection depend on an assessment of the expected effects, more specific the expected merits and shortcomings, of granting a particular level of intellectual property protection for particular results of labour. After all, as mentioned, it has proven problematic to weigh these effects, in an exhaustive and precise way. In fact, calibrating intellectual property rights in view of these expected effects is taken to be prone to subjective estimations, for example relating to the advantages of stimulating certain results of labour by means of intellectual property rights intervention.

b. Comparison of resemblances to delimit the object

Relating to the parameters in the abovementioned 'comparison of resemblances' which intellectual property rights dictate to delimit the group of perceptible things, the object, over which they grant an exclusive right, the alternative logic on calibrating intellectual property rights defends that each intellectual property right is to be interpreted as setting these parameters so as to do the following: require to trace those perceptible things over which it is 'necessary' to let the right holder control certain perceptible acts in order to aptly neutralise the risk of 'imitation advantage' connected to the result of labour which motivates the intellectual property right's grant of protection.

This guideline is first of all taken to imply that, within the 'comparison on resemblances', the parameter on the relevant reference features and the parameter on the relevant level of abstraction are to be set to reflect the findings on the characteristics of the protection motivating result of labour that were made in the abovementioned 'comparison of differences'. More specific, the parameter on the relevant level of abstraction is to reflect the level of abstraction which in the 'comparison of differences' is found to best characterise the application range of this result of intellectual labour. The parameter on the relevant reference features is to be set to trace those perceptible features in the relevant referent incorporation that are pertinent to substantiate the protection motivating result of intellectual labour.
Secondly, this guideline is also taken to require that the parameter on resemblances and the parameter on the relevance of resemblances are set to cooperate, within the larger whole of the 'comparison on resemblances', to introduce a test which lets a perceptible thing fall within the object of the right holder's right, only if the following holds true: the perceptible features which a person gave this perceptible thing show a resemblance to the relevant reference features that the relevant reference incorporation owes to embodying the protection motivating result of intellectual labour which is a resemblance able to substantiate that this perceptible thing in fact relies on this protection motivating result of intellectual labour for its capacity to provide certain experiences. First of all, this ability is taken to require that this resemblance is *sufficient*, namely, when evaluated at the level of abstraction fit to take into account the application range of the protection motivating result of intellectual labour and judged in terms of the capacity to provide certain experiences. Secondly, this ability of the abovementioned resemblance is moreover taken to require that *in concreto* it is possible to explain this resemblance as resulting from the fact that the person who produced this similarity, at the time of doing so, had *knowledge* of existing perceptible features owed to the protection motivating result of intellectual labour. The reasoning behind introducing this test is that, as explained, resemblances which a person brings about with features which he knows to exist and which have initially required intellectual labour are indeed a reliable test to establish the following: that this person relied on 'imitation advantage' relating to this initial intellectual labour, given the impossibility for a person to perform intellectual labour aimed at thinking up features which he already knows to exist. In applying this test, the parameter on resemblances will form the actual lead to check the abovementioned *sufficiency* of resemblances while the parameter on the relevance of resemblances allows to verify whether such sufficient resemblance can *in concreto* be explained, as mentioned, by *knowledge*.

Also here, it can be noted that throughout the abovementioned parameters it is each time defended to calibrate the delimitation of the object, based on a logical analysis of the problem to be addressed *in concreto*, namely 'imitation advantage', rather than, as proposed by the dominant logic, on the basis of an assessment of the expected effects of granting a particular level of intellectual property protection for particular results of labour. Again, the argument here to defend this approach is that it has proven problematic to weigh the effects of granting intellectual property intervention in an exhaustive and precise way.

c. Analysis on consumption chains to delimit the acts reserved to the right holder

With regard to the abovementioned analysis on consumption chains which intellectual property rights impose to delimit the power which they grant over the object, it is defended here that each intellectual property right is to be interpreted as doing merely the following: grant the right holder a power to control those perceptible acts which give rise to or continue an *alternative* consumption chain concerning experiences owed to his result of labour, *next to* the *given* consumption chains concerning these experiences that are based upon the

perceptible things over which factual power was initially handed over with his consent[56]. The explanation for this is that the category of perceptible acts just described *do* contribute to or result in – as characterises 'imitation advantage' – an enjoyment of experiences owed to the creation of the right holder's result of labour, *outside* the spatial and temporal limits of the enjoyment of these experiences made possible through using only the unaltered embodiments of this result of labour over which factual power was initially handed over with his consent. Important to note here is that the guideline just mentioned then also implies that it is not 'necessary' for intellectual property rights to reserve a right holder the following: perceptible acts merely continue a consumption chain concerning experiences owed to his result of labour which is based upon a perceptible thing over which factual power was initially handed over with his consent. After all, this second category of perceptible acts will *not* – as 'imitation advantage' requires – involve an enjoyment of experiences owed to the creation of this right holder's result of labour, *outside* the spatial and temporal limits of the enjoyment of these experiences made possible through using only the unaltered embodiments of this result of labour over which factual power was initially handed over with his consent. In this regard, the dominant logic on calibrating intellectual property rights is considered to be erroneous in not clarifying that there is no reason, in view of adequately avoiding positive externalities and protecting the natural rights of persons to the fruits of their labour, to let intellectual property rights grant the right holder an exclusive right over this second category of perceptible acts, just mentioned.

4. Alternative versus dominant logic on calibrating intellectual property rights intervention

Having described both the dominant and alternative logic on calibrating intellectual property rights intervention, it also becomes possible to summarise that this alternative logic defended here considers the following to be the main flaw of this prevailing logic on performing this calibration: influenced by the theory on 'immaterial goods', this dominant logic focusses too much on the functioning of intellectual property rights at the level of the mental reality of the 'immaterial goods' and pays too little attention to analysing intellectual property rights intervention at the level of perceptible things and acts. More in particular, this focus of the dominant logic on 'immaterial goods' is taken to hamper this logic in two ways. First of all, this focus has the dominant logic overestimate the instances in which intellectual property rights protection is needed to adequately avoid positive externalities and to protect the natural rights of persons to the fruits of their labour. More in particular this logic does so by tending to take the involvement, the use, of a particular 'immaterial good' as a reliable indicator to trace these instances. Secondly, its focus on 'immaterial goods' does not help the dominant logic to establish practical guidelines on performing the balancing exercise which it deems necessary when confronted with the possible consequences of the high level of intellectual property protection which it initially advocates to internalise positive externalities and to protect the natural rights of persons to the fruits of their labour, relating to creating 'immaterial goods'. In comparison, the abovementioned alternative logic believes that its reasoning with much attention for the perceptible things and acts concerned results in better and more precise guidelines on calibrating intellectual property rights intervention.

Conclusion

That intellectual property rights grant the right holder an exclusive right over an 'immaterial good', *i.e.* a mental reality with an existence independent from perceptible things, is usually

considered to belong to the very essence of these rights. In the above, it was demonstrated, however, that this analysis is *not* indispensable to give a coherent explanation of how intellectual property rights intervention works and, on the contrary, tends to misguide the prevailing logic which is applied to calibrate the intervention of intellectual property rights, in accordance to their economic and natural rights justifications. An alternative theory, though, analysing intellectual property rights intervention as burdening perceptible things with 'intellectual servitudes' was demonstrated to also incite a better, alternative logic on how to calibrate the intervention of intellectual property rights, in accordance to its justifications. These alternative views on the 'mechanics' of intellectual property rights intervention and on the logic to appropriately calibrate this intervention might not be free of criticism. However, it is taken here that in any case they do lead the way to discuss the appropriate calibration of intellectual property rights more transparently, without the intricacies of metaphysics muddling the debate.

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[1] The author is a researcher at ICRI-iMinds and a PhD student at the KU Leuven and UGent.
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[3] See on this debate e.g.: Hilty R., Köklü K. and Hafenbrädl F. (2013), Software Agreements: Stocktaking and Outlook – Lessons from the UsedSoft v. Oracle Case from a Comparative Law Perspective, IIC, 263 ff..
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[6] E.g.: Zemer L., supra note 5, 918; Waldron J. (1992-1993), From authors to copiers: individual rights and social values in intellectual property, Chi.-Kent L. Rev., 68, 887.
[7] E.g.: Koelman K. (2004), Copyright Law and Economics in the EU Copyright Directive: Is the Droit d´Auteur Passé?, IIC, 605-606; Greenhalgh C. and Rogers M. (2010)., Innovation, Intellectual Property, and Economic Growth, Princeton University Press, Princeton, 17 ff..
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[14] See e.g.: Greenhalgh C. and Rogers M., supra note 7, 26.
[15] E.g.: Landes W. and Posner R. (1989), An Economic Analysis of Copyright Law, J. Legal Stud., 18, 326; Liebowitz S., Copyright Law, Photocopying, and Price Discrimination, in: Palmer J. and Zerbe R. (eds.) (1986), Research in Law and Economics: The Economics of Patents and Copyrights, JAI Press, London, 184.

[16] See e.g.: Fisher W., supra note 2, 176-194.
[17] E.g.: Troller A. (1985), Immaterialgüterrecht, Helbing & Lichtenhahn, Basel, 55; Eberstein G. (1923), Den svenska författarrätten, P.A. Norstedt, Stockholm, (Part I), 102; Kohler J. (1907), Urheberrecht an schriftwerken und verlagsrecht, Verlag von Ferdinand Enke, Stuttgart, (Reprint 1980: Scientia Verlag, Aalen), 1.
[18] See e.g.: Troller A., supra note 17, 58-59; Kohler J., supra note 17, 10.
[19] E.g.: Kopff A. (1983), Die Schutzsysteme im Immaterialgüterrecht, GRUR Int, 352
[20] See e.g.: Dusollier S. (2005), Droit d'Auteur et Protection des Oeuvres dans l'Univers Numérique. Droits et Exceptions à la Lumière des Dispositifs de Verrouillage des Oeuvres, Larcier, Brussels, 377 ff. and Joos U. (1991), Die Erschöpfungslehre im Urheberrecht, C.H. Beck'sche Verlagsbuchhandlung, Munich, 52.
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[31] E.g.: Zemer L, supra note 5, 918; Waldron J, supra note 6, 887.
[32] See e.g.: Koelman K., supra note 7, 621-622.
[33] E.g.: Cohen J. (2000), Copyright and the Perfect Curve, Vanderbilt Law Review, 53, 1801 and Liebowitz S, supra note 15, 184.
[34] See e.g.: Lunney G. (1996), Reexamining Copyright's Incentives-Access Paradigm, Vanderbilt Law Review, 49, 488.
[35] E.g.: Kirchner C. (2004), Innovationsschutz und Investitionsschutz für immaterielle Güter, GRUR Int, 604.
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[37] E.g.: Fisher W., supra note 2, 176 ff.; Gordon W., supra note 13, 625.
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[41] Art. 3.1. and art. 1 Database Directive.
[42] E.g.: Loewenheim U., Das Werk, in Schricker G. (2006), Urheberrecht Kommentar, C.H. Beck, Munich, 71-72.
[43] E.g.: ECJ Case C-145/10, *Painer v. Standard* (et al.), (1 December 2011) *OJ* C 32 (04.02.2012), 7, para. 99; Christie A. (1995), Integrated Circuits and their Contents: International Protection, Sweet & Maxwell, London, 50.
[44] See e.g.: Loewenheim U., supra note 43, 78.
[45] E.g.: ECJ Case C-5/08, *Infopaq International v. Danske Dagblades Forening*, (16 July 2009) *OJ* C 220 (12.09.2009), 7, para. 51.
[46] E.g.: art. 9.2. Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS).
[47] E.g.: Strowel A. (2006), La contrefaçon en droit d'auteur: conditions et preuve ou pas de contrefaçon sans 'plagiat', Auteurs & Media, 268.
[48] Buydens M. (2004), Droit d'auteur et hasard: réflexions sur le cas de la double création indépendante, Auteurs & Media, 477-483.
[49] E.g.: 5, a) Database Directive.
[50] Compare Schramm's analysis of 'Nutzungsketten': Schramm C, supra note 40, 249 ff..
[51] Important in this connection is that both the *spatial* and *temporal* limits of the enjoyment of experiences by using only a particular perceptible thing are to be measured in reference to this perceptible thing actually offering these experiences, taking into account that actually offering these experiences might require alterations or duplications of this perceptible thing.
[52] Compare: Landes W. and Posner R. (2003),The economic structure of intellectual property law, Harvard University Press, Cambridge (Mass.), 21-22 (who characterise intellectual property rights as an add-on to physical property rights).
[53] E.g.: Koelman K (2003), Auteursrecht en Technische Voorzieningen. Juridische en Rechtseconomische Aspecten van de Bescherming van Technische Voorzieningen, Sdu Uitgevers, Den Haag, 175; Lipsey R. and Lancaster K. (1956-1957), The General Theory of Second Best, Review of Economic Studies, 24, 11-32.
[54] Compare e.g.: Drexl J. (2004), Intellectual Property and Antitrust Law - IMS Health and Trinko - Antitrust Placebo for Consumers Instead of Sound Economics in Refusal-to-Deal Cases", IIC, 805.
[55] Inspiring this analysis: Quaedvlieg A. (1996), Beschermingsdrift: Een studie naar feiten en achtergronden rond sweat of the brow- of prestatiebescherming, BIE, 53 ("*kopieergemak*") Lunney G. (1995-1996), Lotus v. Borland: Copyright and Computerprograms, Tul. L. Rev., 70, 2435-2436 ("*disproportionate or undue copying advantage*").
[56] Compare: Dreier T., Perspektiven einer Entwicklung des Urheberrechts, in Becker J. and Dreier T. (eds.) (1994), Urheberrecht und digitale Technologie, Nomos Verlagsgeselschaft, Baden-Baden, 135 (Who requires a copyright relevant temporary reproduction to constitute a: "*neue Möglichkeit der Werknutzung*" or "*neue, eigenständige Nutzungsmöglichkeit*").