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On how can higher education institutions contribute, or not, to the success, or not, of public policies of social cohesion

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### Abstract

Public policies aimed at achieving an increased level of social cohesion were initially confronted with a problem associated with what would/should be understood as social cohesion. This problem has raised difficulties in its implementation and monitoring, which has been tried to reduce, for example, by the latest European Union recommendations on Cohesion Policies. In fact, the reduction in the ambiguity of what is meant by social cohesion has also made it possible to better identify the instruments and agents of public policy that best contribute to that goal. Based on this fact, our objective is to analyze a less considered aspect in the literature, which is the importance of higher education institutions (HEIs) in public policies aimed at social cohesion. In doing so, we consider two points of view: 1. How HEIs may, or may not, contribute to that objective, through its *external effects*, eventually on the surrounding territory; 2. How can HEIs contribute, or not, to those objectives, through their *internal effects*, possibly on the level of social cohesion of the individuals who constitute them. This second point of view, which, as far as we know, has been (even more) ignored by literature, is, as a fundamental, crucial to that first point of view, since, without internal social cohesion, HEIs can hardly contribute, as much as possible, to external social cohesion.

**Keywords:** Higher Education Institutions; Public Policies; Social Cohesion.

**JEL codes:** A13; C70; D02; D63; D74; I23.

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## 1. Introduction

Let us begin with the title of this manuscript. It obviously shows that we consider a particular case of public policies, i.e. those of social cohesion, which, of course, may or may not be successful. In any of these two cases, this may have resulted from a positive contribution, or not, from higher education institutions (HEIs). Thus, it is our objective adding to the understanding of how HEIs can contribute to the outcomes of public policies of social cohesion, which, of course, will also be the result of the contributions of the other factors that explain social cohesion.<sup>2</sup>

In methodological terms, two points of view are to be considered: in the first place, one that is based on the external effects of HEIs in the surrounding territory; secondly, another that is based on the internal effects of HEIs on the individuals that constitute them. In particular, in using this second point of view, this means that we will, as far as we know, use an approach somewhat different from that usually considered in the literature. In fact, by considering that internal social cohesion is a *sine qua non* condition for the existence of the greatest external cohesive effects, this means that the answer to the key question will, ultimately, be given in micro terms, i.e. from the point of view of the internal functioning of HEIs. In this sense, this manuscript is part of a trend which, we believe, will characterize the macro-public policies, as has already happened in the particular case of macro-economic policies, i.e. their theoretical foundation from a micro/fundamentals perspective.

That being said, the rest of the manuscript is structured as follows: Section 2 offers a general overview of social cohesion; Section 3 presents the external effects of HEIs that (most often) contribute to social cohesion; Section 4 discusses the internal effects of HEIs on social cohesion; Section 5 deals with a methodological digression on cohesion, which may be useful for future analyzes. Section 6 concludes in the usual way.

## 2. A General Overview of Social Cohesion

Public policies aimed at achieving higher levels of social cohesion were initially confronted with a problem associated with the difficulty of specifying what is meant by social cohesion.<sup>3</sup> Regardless of the definition of social cohesion that one wants to take, the literature generally considers three basic dimensions of social cohesion: social capital, social inclusion and social mobility (OECD, 2011).<sup>4</sup>

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<sup>2</sup> Just as a curiosity, a recent query (conducted on June 12, 2018) on the internet revealed the existence of approximately 679 million results for “Higher Education Institutions”, 83 million results for “Social Cohesion”, and 25 million results for “Higher Education Institutions and Social Cohesion”.

<sup>3</sup> To begin with, it may be interesting to note that the Wikipedia article, where social cohesion was defined as “a term used in social policy, sociology and political science to describe the connections that unite people in society, particularly in the context of cultural diversity.” was replaced by another on group cohesiveness, considered to be synonymous of social cohesion. ([https://en.wikipedia.org/wiki/Group\\_cohesiveness](https://en.wikipedia.org/wiki/Group_cohesiveness); accessed on June 12, 2018). Here, according to Carron & Brawley (2000), cohesion is defined as being “the tendency for a group to be in unity while working towards a goal or to satisfy the emotional needs of its members.”

<sup>4</sup> For a list of definitions of social cohesion, some of them clearly acknowledging these basic dimensions, see <http://www.socialcohesion.eu/home.htm> (accessed on June 12, 2018). See also Bruhn (2009).

Of course, those three dimensions of social cohesion interact with each other. For example, a greater propensity to cooperate on the part of individuals in order to achieve common objectives, which is associated with social capital, will only be possible if there is a degree of belonging (to society) that allows it, which implies a higher degree of social inclusion. This greater social inclusion, combined with the struggle against social marginalization and social exclusion, will be as easy to achieve as it is possible to increase the status associated with social mobility. In this process of working towards the well being of all individuals in a society, trust ends up playing an essential role.<sup>5</sup>

To sum up, from this point of view, it can be said that a society will be more cohesive the higher its level of social capital, of social inclusion, and of (possibility of) upward social mobility, i.e. the more cooperative, inclusive, solidary, equitable, and democratic it is.

According to Chan et al. (2006), there is a double perspective in the understanding of social cohesion: one of a more micro/individual nature and one of a more macro/regional nature. This duplicity ends up reflecting the type of indicators used to measure social cohesion.<sup>6</sup> For example, the OECD considers life satisfaction, trust, and voting, as indicators of social cohesion (OECD, 2016),<sup>7</sup> whereas the Eurostat considers schooling years, the long-term unemployment rate and the regional dispersion of employment rates by gender (as indicators of social cohesion).<sup>8</sup>

Clearly, for European authorities, social cohesion is thus associated with economic cohesion, in particular with regional cohesion, as a policy objective of reducing disparities between the regions of the various Member States (European Commission, 2007; 2008; 2009).<sup>9</sup> This is important to ensure the sustainability of the regions (Tvrdon, 2012).

As is well known, the cohesion policy of the European Union (EU) established in 1986, at the level of the so-called Single European Act, focused on the economic and social dimensions. As a matter of fact, since the Treaty of Rome, with the creation of the European Social Fund (ESF) in 1957, the principle of social solidarity was present in the Community's objectives, in particular as regards the management of the Structural Funds. While the main objective of the ESF is to increase the level of employment, it has reflected changes in the various stages of cohesion policy. It has gained special relevance as the main instrument for pursuing the economic and social objectives associated with the cohesion policy set out above.

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<sup>5</sup> See below how the OECD views trust, i.e. confidence in the others and in (public) institutions as an indicator of social cohesion.

<sup>6</sup> Difficulties with regard to what is meant by social cohesion have raised difficulties in their measurement, which have gradually been overcome or at least circumvented (Fitzduff, 2007; Rajulton et al., 2007; Dickes et al., 2008; Jensen, 2010; Acket et al., 2011; Larsen, 2014; Salas et al., 2015).

<sup>7</sup> To some extent following this approach, the Social Cohesion Index of the Scanlon Foundation considers the following five core domains of social cohesion: belonging, worth, social justice, participation and acceptance and rejection. See <http://scanlonfoundation.org.au/research/social-cohesion-index/> (accessed on October 07, 2018).

<sup>8</sup> In this sense, from a psychological perspective, cohesion is high when individuals form a team (with a common goal), whereas from a 'social' perspective, cohesion is high when regions/territories are economically similar.

<sup>9</sup> It is fair to recognize that, more recently, the European Union authorities have been adopting a vision of social cohesion that is not so 'economistic', since issues such as poverty risk, demographic challenges, migration and social progress are fundamental in the attainment of a more cohesive society. This is evident in the most recent reports on economic, social and territorial cohesion (European Commission, 2013; 2014; 2017).

Unexpectedly, the above mentioned imprecision about social cohesion, in turn, has raised problems with regard to the implementation and subsequent monitoring of public policies of social cohesion. As is well known, the recent European Union recommendations on (social) cohesion policies have sought to reduce those problems.

As a matter of fact, more recently, as recognized in the EU Cohesion Policy 2014-2020, the (public) policy outcomes should be emphasized by setting clear and measurable targets to provide an increased degree of accountability (the principle of transparency and accountability). This is a clear recognition that evaluation, as a terminal phase of any public policy, plays a key role, in that it allows one to verify the extent to which the results have approached the targets and determine, when appropriate, the explanatory factors of an eventual (unacceptable) discrepancy between the actual and desired trajectories.<sup>10</sup>

In fact, the reduction in ambiguity over what is meant by social cohesion has also made it possible to better identify those public policy actors who can (best) contribute to the achievement of that objective. Our perspective highlights the role of HEIs as one of those actors, for (almost) obvious reasons (Baltazar et al., 2011). For instance, in the process of forming a social capital level, access to education for all is generally considered to be a *sine qua non* condition (Council of Europe, 2005: 147-152).<sup>11</sup> In reality, education plays a relevant role on all the above mentioned three dimensions of social cohesion, namely social capital, social inclusion and social mobility (OECD, 2014).<sup>12</sup> This role is obvious when considering the contribution of HEIs to social cohesion from the viewpoint of their external effects, which is to be presented in the following section.

### 3. The External Effects of HEIs on Social Cohesion

From the point of view of territorial cohesion, the literature is quite consensual about how higher education institutions can contribute, for instance through employment and/or (spread of) knowledge associated with them, to a more equitable territory, in the short term at the level of economic activity, and in the long term at the level of knowledge of the populations living in those territories (Pusztai et al. 2012; Rego et al., 2012; Rego et al., 2013).<sup>13</sup>

As regards the economic impact of higher education institutions, it is traditional to say that the economic effects of HEIs are of three types: (i) direct, linked to final demand; (ii) indirect, linked to inter-sectoral relations between HEIs and other sectors of economic activity; and (iii) induced, associated with employment and wages. See, among others, Beck et al. (1995), Turner (1997) and/or Woodward & Teel (2001), Rego & Caleiro, 2012a; Baltazar et al., 2013b).<sup>14</sup>

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<sup>10</sup> As is well known, in general, the phases/stages of public policies are the following: Identification of the problem; Agenda setting; Determination of policy alternatives; Decision making; Policy implementation; and Policy evaluation. See, for instance, <https://online.pointpark.edu/public-administration/policy-making-cycle/> (accessed on June 12, 2018).

<sup>11</sup> For an extensive list of publications on social cohesion by the Council of Europe, see [https://www.coe.int/t/dg3/socialpolicies/socialcohesiondev/guide\\_en.asp](https://www.coe.int/t/dg3/socialpolicies/socialcohesiondev/guide_en.asp) (accessed on June 12, 2018).

<sup>12</sup> See <http://wikiprogress.org/articles/poverty-development/social-cohesion/> (accessed on June 12, 2018) for a modest, yet interesting, explanation of this fact.

<sup>13</sup> Although eventually outdated, see Arbo & Benneworth (2007) for a very thorough review of the literature on the regional contribution of HEIs.

<sup>14</sup> The existence of these three types of effects makes the input-output analysis a particularly convenient methodology for measuring the economic impacts of HEIs in the surrounding territory

In what concerns the acquisition (and subsequent spreading) of knowledge by graduates at the HEIs, it is to be acknowledged that the social transformations resulting from the attempt to create a knowledge economy, in the context of globalization, had an impact on HEIs (Brennan, 2008; Faine et al., 2016). At the European level, the Bologna Process was (or should have been) an example with such an impact (Osborne, 2003; Maassen & Stensaker, 2011), requiring a real change in HEIs favoring the international mobility of students.<sup>15</sup>

Particularly in terms of the importance of higher education institutions for social cohesion, the adequate socialization of students can contribute to the acquisition of values favorable to the (local) community development (Moiseyenko, 2005). The traditional role of HEIs in providing (technical) training to their students contributes to the creation of human capital. But since this is not the only training obtained by students, HEIs allow the creation of social capital,<sup>16</sup> for example, through the interactions established among their students,<sup>17</sup> and also the achievement of a set of ethical norms that support the existence of a common good (Heuser, 2007).<sup>18</sup> On the other hand, Green & Preston (2001) call the attention that education may have different effects on social capital and on cohesive societies as, in fact, societies that are rich in community-level social capital are not necessarily characterized by a high level of cohesion. See also Green et al. (2006).

To sum up, the fact that education is a merit good is also relevant to the understanding of all the effects (on its graduates and on society, through the diffusion of knowledge) of HEIs (Behrman & Stacey, 2000).<sup>19</sup> As a matter of fact, the positive externalities associated with the acquisition of education by students are one of the more important facts that should be taken into account when analyzing the external effects of HEIs,<sup>20</sup> which adds up to the traditional economic perspective on the importance of HEIs in the surrounding territory.

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(Goldstein, 1989; Caleiro & Rego, 2005). In fact, through the analysis of the inter-sectoral relations that HEIs have with other sectors of economic activity – via the production network, expressed in the so-called matrix of technical coefficients – this same analysis shows that, for regions where the network of relations is weaker, the existence of an HEI in that territory may be more important for territorial cohesion than the existence of an HEI in another region where that network of relations is less weak (Rego et al., 2012).

<sup>15</sup> Given the mobility of the graduates by the different HEIs, both within the country itself (Rego & Caleiro, 2004; Caleiro, 2016; Rego & Caleiro, 2010; Guerreiro & Caleiro, 2016a; 2016b) and internationally (Teichler, 2004), it is not peremptory the statement that the dissemination of knowledge resulting from training in HEIs is necessarily a factor that favors territorial cohesion.

<sup>16</sup> Through the creation of human capital, HEIs generate economic benefits, but these can also be associated with the formation of social capital, for example through the beneficial effects on economic growth as a result of the decrease in 'social distances' between individuals which make up society (Gradstein & Justman, 2002; Rego & Caleiro, 2012a). See also Baltazar et al. (2013a).

<sup>17</sup> Reportedly, these student interactions will help reduce their cultural gap, thus enhancing social cohesion (Smart et al., 2000; Durie, 2009).

<sup>18</sup> In this respect, one should call the attention for the role that HEIs can play in the organizational identification of their students (Mael & Ashforth, 1992), which will be much easier to obtain as an element that enhances social cohesion, if HEIs themselves are characterized by being internally cohesive.

<sup>19</sup> As is well-known, along with education, health is also a major example of a merit good. Thus, it is not surprising that the literature on social cohesion has also related this to health status (Kawachi & Berkman, 2000; Bruhn, 2009).

<sup>20</sup> This also means that cost-benefit analysis should be considered in measuring the importance of HEIs (Caleiro, 2006b; Rego & Caleiro, 2012c).

#### 4. The Internal Effects of HEIs on Social Cohesion

At first sight, it seems to be consensual to accept that the more the HEIs are internally cohesive, the better they will work,<sup>21</sup> thus resulting in a greater contribution to social cohesion at the external level.<sup>22</sup> In other words, the more individuals who make up the HEI will behave as a group, the more the HEI will contribute to a cohesive society.

The sociologist Émile Durkheim is allegedly credited with the first analysis of social cohesion in studying the group effect, i.e. the fact that a group of individuals behave in a way that achieves a common goal, often relegating to the background those who would be their interests if they were not part of that group (Durkheim, 1895, 1982).<sup>23</sup> To put it in other words, the group, as the set of individuals, goes beyond a simple sum of its parts, making the team level as the appropriate perspective when studying these matters (Salas et al. 2015).<sup>24</sup>

As is well known, there are some reasons why a group of individuals behave as a group, namely when enmity relationships are established and/or non-cooperative behavior (sometimes the result of those relations) tends to prevail.

Non-cooperative behavior is to be expected when the so-called Prisoner's Dilemma occurs, i.e. each individual only considers his/her private interests, for sure this not being in his/her best interest. In other words, each individual obtains the best result, from his own point of view, when assuming a non-cooperative behavior and every other cooperates. Clearly, the trust that is needed to achieve cohesion becomes (extremely) difficult to obtain, which is all the more so as the more myopic are the individuals.

Because time horizons are important for the occurrence of cooperative behavior, this also means that social cohesion is inherently temporal (Salas et al. 2015). The evolution of social cohesion over time is, in fact, an empirically established reality. For example, it tends to decline in times of crisis (Bertelsmann Stiftung & Eurofound, 2014).<sup>25</sup>

In the particular case of HEI, non-cooperative behavior may assume a so-called toxic nature, i.e. someone purposely harming someone else (in terms of his curriculum/academic results), which tends to occur when allowed (or even worse, potentiated) by evaluation schemes of the academic performance. From this point of view, therefore, irregular, or even toxic,

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<sup>21</sup> From a different perspective, one may quote the gospel of Mark III: 24-25 – “A kingdom divided against itself can't stand. An internally-divided household can't stand.”, and/or of Luke XI: 17 – “Jesus, knowing what they were thinking, said, “Any kingdom that's divided against itself is destroyed, and a house divided against itself falls.”

<sup>22</sup> It is fair to recognize that Dyaram & Kamalanabhan (2015) is one of the few studies that conclude that cohesion may not necessarily result in better performance.

<sup>23</sup> In these matters, the so-called field theory of the, also French, sociologist Pierre Bourdieu is of obvious interest, since in the social system there are fields, i.e. a system of social positions which are internally structured in terms of relations of power.

<sup>24</sup> A psychological perspective of social cohesion states that it is high when individuals form a team, so that the achievement of the team objective, which is common to all individuals, overlaps (in fact, becomes coincidental) with the objectives of individual nature. See [https://simple.wikipedia.org/wiki/Social\\_cohesion](https://simple.wikipedia.org/wiki/Social_cohesion); accessed on June 12, 2018).

<sup>25</sup> It should be noted that when someone prepares to switch to another HEI because, for example, his/her current HEI is going through a difficult time, this propitiates the existence of non-cooperative behavior as a result of a finite time horizon. This can also happen when someone approaches retirement (Caleiro, 2006a).

behavior can be introduced by those who can condition the performance of others in certain evaluation items (Caleiro, 2013).

Regarding the evaluation schemes of the academic performance the literature points to at least two possible problems:

- Biasing - when those responsible for the definition of the items to be evaluated and / or weights (to be considered in the determination of the final classification) associated with those items, will themselves be evaluated according to these evaluation criterion(s).
- Relativity - Evaluation systems which appear to be absolute are in fact relative, even if the classification given to each individual does not seem to have any relation to the classification given to the other(s). This is so when the objective function of each individual reflects not only his/her own classification but also that of the other(s), as is the case, for example, when it exists a quota for each type of classification, in particular for the top classifications.

The above mentioned relativity may induce a toxic behavior whereas biased evaluation, in fact, be associated with a malevolent exploitation of the, so-called Matthew effect (Merton, 1968; Walberg & Tsai, 1983; Merton, 1988; Caleiro, 2018),<sup>26</sup> both jeopardizing the internal cohesion of HEIs.

The professional misconduct involved in toxic behavior may, in extreme cases, assume a corruption facet. As Heyneman (2004: 647) puts it: “Education is the linchpin to a nations’ social cohesion, and once the public comes to believe that the education system is corrupt, they will also believe that the future of their nation has been unfairly determined against them and their interests.”<sup>27</sup>

Toxic behavior can be seen as a severe case of negative relationships among the individuals that constitute an HEI. Obviously that does not exclude that positive relationships may occur. All these relationships may result from well-known triads as follows:

1. The friend of my friend is my friend
2. The enemy of my enemy is my friend
3. The friend of my enemy is my enemy
4. The enemy of my friend is my enemy

Positive (e.g., friendship) and negative (e.g., enmity) relationships can be modeled according to structural balance theory. When two friends share a friend, or even when they share an enemy, the pattern of relationship is balanced; it will not be when, for example, two enemies share a friend. In any case, when those two types of relationships exist, as is almost inevitable, individuals can always be partitioned on two opposite sides (Schwartz, 2010).<sup>28</sup>

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<sup>26</sup> Note that the Matthew effect may be associated with some sort of Lotka’s “inverse square law” of scientific productivity (Lotka, 1926). Even if this law is not strictly enforced, the truth is that from the point of view of cohesion it will make more sense to the principle of “compensatory opportunity”, i.e. helping the neediest, rather than the principle of “equal opportunity”, i.e. treating all as equal (Krislor, 1974).

<sup>27</sup> This is a particularly interesting view of the role of education, as a linchpin is “one that serves to hold together parts or elements that exist or function as a unit”; see <https://www.merriam-webster.com/dictionary/linchpin> (accessed on September 01, 2018).

<sup>28</sup> For a seminal view of this issue see Cartwright & Harary (1956).



The existence of negative relationships is (almost) inevitable as a result of the very nature of the academic environment, which is conducive to the existence of competition, which often generates conflicts. In turn, this competition is itself reinforced by practices instituted in higher education institutions, such as the evaluation of its elements (academic and non-academic staff), as mentioned above.

To sum up, the occurrence of non-cooperative behavior, sometimes assuming a form of negative relationships among the individuals of an HEI, are probable situations that, indeed, contribute for a diminished level of internal cohesion, which may lead to problematic situations in what concerns the future of HEIs (Caleiro, 2017).

## 5. A methodological digression on cohesion

Given the importance of the network of relations for cohesion, it seems clear that graph theory is a methodological approach with many potentialities.<sup>29</sup> This becomes easier to apply when it comes to the analysis of cohesion between individuals who make up an institution (in this case, an HEI). As a matter of fact, graph theory already provides some measures of graph cohesion,<sup>30</sup> such as density, i.e. the number of edges, expressed as percentage of the maximum possible number of edges. In formalized terms,  $E$  being the number of edges and  $V$  being the number of vertices, the density of a directed (i.e. for unidirectional relations) simple graph is given by

$$D = \frac{E}{V(V - 1)},$$

whereas the density of a undirected (i.e. for bidirectional relations) simple graph is given by

$$D = \frac{2E}{V(V - 1)}.$$

The above-mentioned measure of graph cohesion has a limitation, particularly evident in our case, which consists in ignoring the type and strength of the relations established between the nodes. In this regard, it is important to mention the so-called homophily, i.e. the tendency for individuals with the same characteristics to establish (strong/stronger) relationships with each other.<sup>31</sup> This characteristic leads to the formation of clusters, which are so characteristic of HEIs, that may jeopardize global cohesion if there are no, or not enough, so-called bridges linking (although in a less strong way) those clusters. Clusters are also usually characterized by the existence of transitive relations, i.e. if A relates to B, and B relates to C, then A also relates to C, which causes strong/stronger relations.

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<sup>29</sup> In simple terms, a graph corresponds to a set of elements (nodes or vertices), possibly connected to each other through pairwise relations (edges). For an online textbook on graph theory see <http://diestel-graph-theory.com/index.html> (accessed on October 07, 2018). For some free software on graphs see <https://gephi.org/> (accessed on October 07, 2018) and/or <https://www.yworks.com/products/yed> (accessed on October 07, 2018).

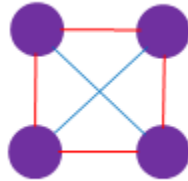
<sup>30</sup> On the other hand, there are also some measures of fragmentation, such as the  $F$  measure, i.e. the proportion of pairs of nodes that are unreachable from each other.

<sup>31</sup> See Lott & Lott (1965) for a very complete review of the variables that from the psychological point of view assume antecedent and consequent relations with the interpersonal attraction in a group defining the cohesion of the same. For the same point of view see also Seashore (1954).

What has been said above is of crucial importance for the type of relations (some transitive) that, in fact, characterize HEIs, namely:<sup>32</sup>

1. The friend of my friend is my friend
2. The enemy of my enemy is my friend
3. The friend of my enemy is my enemy
4. The enemy of my friend is my enemy

As an illustration, consider the following non-directed graph with four vertices, in which the links in red (resp. blue) represent relations of enmity (resp. friendship).



**Figure 1: A graph**

Using the traditional measure of density as a measure of graph cohesion, the above graph is of full density, as it is a complete graph. However, given the types of relationships that it translates, a better measure of cohesion will be 2 (relations of mutual friendship) in 6 (relations of mutual friendship or enmity), i.e. 1/3.

## 6. Conclusion

A definition of public policies affirms that they correspond to the activities or inactivities of public authorities that, directly or indirectly, individually or in partnership, have an effect on the lives of citizens. From the point of view of these effects, public policies aiming at achieving a cohesive society are of particular importance. Given the crucial role of education in achieving social cohesion, namely social capital, social inclusion and social mobility, higher education institutions are an actor whose contribution is relevant to the outcome of social cohesion policies. At the outset, the success (resp. failure) of social cohesion policies should be associated with a positive (resp. contribution) from HEIs.

By definition, the contribution of HEIs to the outcome of social cohesion policies results from the combination of their internal effects, i.e. on the individuals who constitute them, with their external effects, i.e. on the surrounding territory. It is our working hypothesis that the external effects of HEIs will be all the more positive the more HEIs are internally cohesive. This hypothesis results naturally from the assumption that the internal effects, being of an endogenous nature, exert a direct (or potentiating) relation on the external effects, which are exogenous in nature.

From the external effects point of view, it is (almost) consensual to consider that HEIs contribute, in a positive way, to the success of public policies of social cohesion as they contribute to territorial cohesion, e.g. in terms of employment rates, to inequality reduction,

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<sup>32</sup> As acknowledged, for instance in Goodreau et al. (2009), there is a tendency to a triad closure, i.e. when a triad contains two ties, the tendency is for a third tie being established between the two nodes (apparently) having no relation.

e.g. in terms of wages by gender, and to inclusive growth, e.g. in terms of knowledge spreading.

From the internal effects point of view, it is our opinion that HEIs may (easily) contribute, in a negative way, to the failure of public policies of social cohesion, essentially for all the reasons that jeopardize social capital, namely the existence of non-cooperative and/or toxic behavior, which are (quite) plausible to exist in competitive academic environments.

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