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The current issue is the third of the twelfth volume of the **Athens Journal of Social Sciences** ***(AJSS),*** *published by the Social Sciences Division of Athens Institute.*

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Gregory T. Papanikos
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Athens Institute

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Practicing Solidarity: Migrant Reception Services in Salerno, Italy, in a Time of Crisis, Conflicts and Policy Contradictions

By Domenico Maddaloni[*] & Jessica Maglio[±]

This article aims to discuss some results of the qualitative research we conducted in the province of Salerno, a large area of Southern Italy, during the summer of 2022. Our target group was a selected group of key informants - civil servants and operators of civil society organizations active in reception services for migrants, refugees, and asylum seekers. Our analysis of emerging solidarity practices in this territorial area allows us to shed light on the paths through which the people working in migrant reception services adapt to the increasingly difficult conditions imposed by economic stagnation, an increasingly hostile political climate towards migrants, and the contradictions of Italian immigration policy.

Keywords: *international migration, Italy, migration policy, welfare, qualitative research*

Introduction

In recent years, Italy has become a crossroads for many international migration flows, including waves of migrants, refugees, and asylum seekers from North Africa, sub-Saharan Africa, and West Asia. This new status of Italy as a host country for international mobility flows has produced several consequences both in the domestic political debate and in immigration policies. In this context, what are the problems and perspectives of Italian policies towards migrants and refugees? After a brief description of recent migration flows to Italy and an analysis of the recent evolution of Italian debates and state policies on immigration, we try to highlight the main features assumed by the response provided by public institutions and civil society organizations to recent waves of migration. Relying mainly on in-depth interviews with managers and operators of migrant assistance services in the province of Salerno, we have tried to highlight the contradictions emerging between the scarcity of resources made available by the State, the securitarian impulses widespread in parts of Italian society and politics, and the need to guarantee a dignified life to those fleeing violence or hunger.

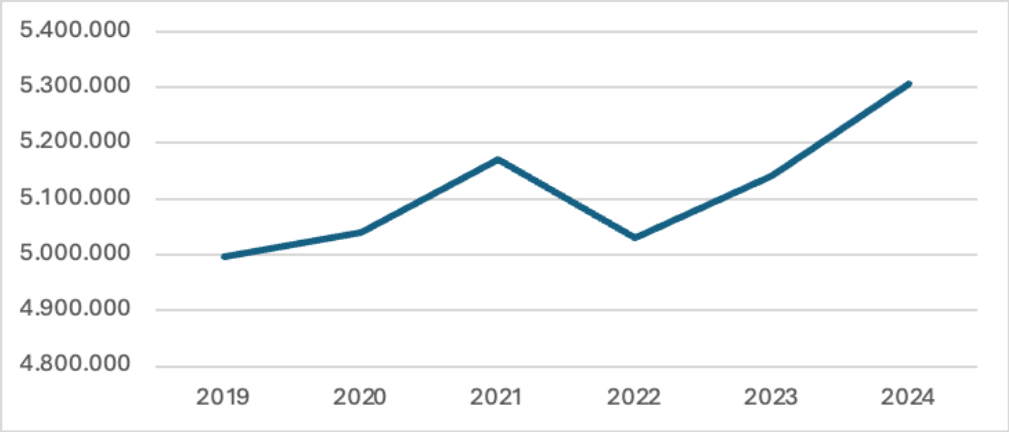
Migration Flows Towards Italy: Recent Trends

Italy plays a significant role in the current framework of international migration. In a short time, it has gone from being a country of emigration to becoming a relevant destination for international migration. In the last five years (see Figure 1) the foreign

[*]Professor, University of Salerno, Italy.
[±]Researcher, University of Salerno, Italy.

population in Italy has stabilized at more than 5 million, accounting for 8.7% of the total resident population (ISTAT 2023).

Figure 1. *Total Foreign Resident Population in Italy: Last 5 Years*



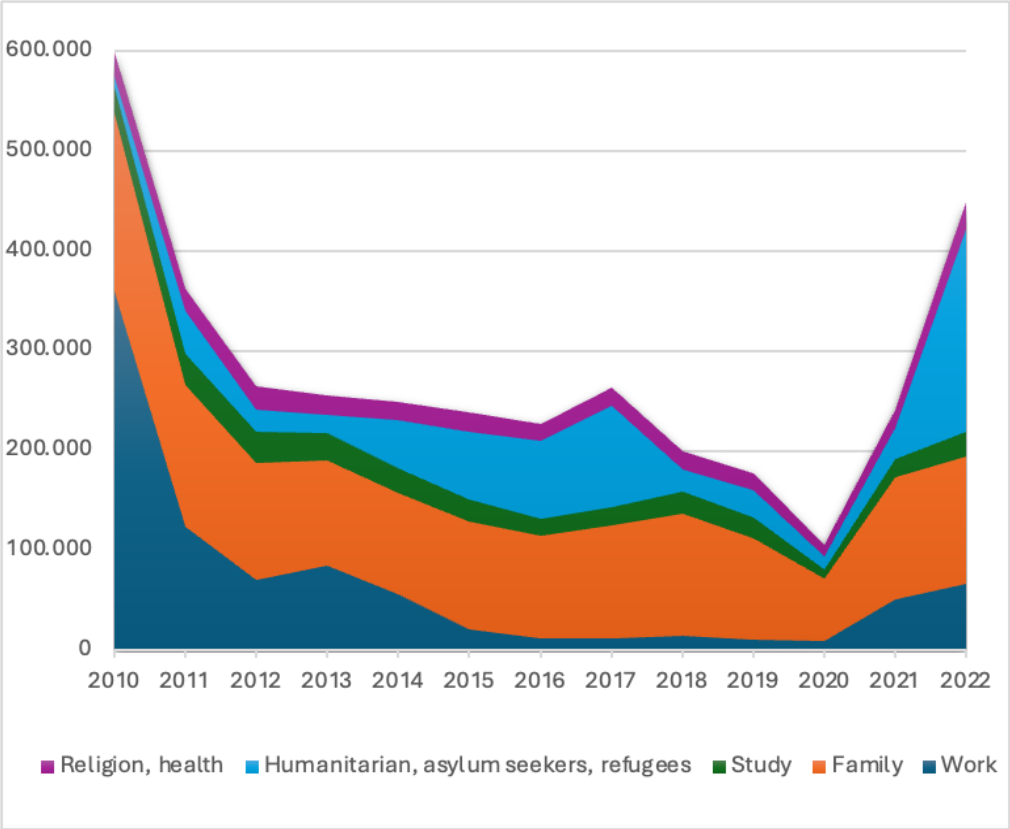
Source: ISTAT, last retrieval: September 18, 2024.

Among these resident foreigners, 3.7 million are non-EU citizens with a regular residence permit, an increase of 4.7 percent compared to the previous year, mainly determined by the activation of Directive 2001/55/EC in favor of Ukrainian citizens (ISTAT 2023). Non-EU citizens' main areas of origin are Asia, Africa, and non-EU Europe. The countries from which most foreign immigrants in Italy come are Morocco (11.5% of total non-EU residents), Albania (11.1%) and China (8.2%). Overall, non-EU immigrants are equally divided between men and women, but significant imbalances are observed when considering the countries of origin. For example, the female immigration component from Georgia and Russia exceeds 80%, while the incidence of residents from Mali and Gambia is less than 5% (Ministero del Lavoro e delle Politiche Sociali 2023).

The migrant population is unevenly distributed across the Italian territory, with strong imbalances between the more developed regions of Northern and Central Italy and the more backward regions of Southern Italy. Differences between urban and rural areas are also notable, except in those territories where policies to counter depopulation have favored the settlement of migrant communities (Brandano et al. 2023).

It is important to note that Italy's total number of residents decreased by 1.4% between 2010 and 2022. This decrease was partly offset by the foreign population, which increased by 31.6% (Ministero del lavoro e delle politiche sociali 2023). Therefore, without the positive demographic contribution provided by migration flows, even more, dramatic replacement deficits would be reached in Italy, with particularly negative effects on the labor market (IDOS Study and Research Centre 2023). The recent growth of residence permits for work reasons (see Figure 2) can illustrate this situation well.

Figure 2. *Residence Permits in Italy for Motives: 2010-2022*



Source: ISTAT, last retrieval: September 18, 2024.

Although, at the time of writing (autumn 2024), a complete overview of data for 2023 is still lacking, there is evidence of an upward trend in migration dynamics in the post-pandemic period. Provisional data, however, indicate that the recent increase in admissions has not led to an 'invasion' of migrants, as political and media figures have complained.

Migration to Italy: Political Debates and Policy Responses

Recent research has shown an increase in the levels of racism and xenophobia expressed by specific segments of Italian society over the years. According to OSCAD data, between 2016 and 2021, the number of hate crimes in Italy rose from 736 to 1445 (OSCAD 2022). If only crimes based on racial, ethnic, or religious differences are considered, the number of hate crimes increased from 494 to 1160 over the same period. A research report by Lunaria (2020) examines the issue of racism in Italy over twelve years and underlines the systemic nature of racism and its roots in institutionalized discrimination. There is growing evidence of the connection between discriminatory rhetoric, distorted representations, online hate speech, and physical acts of racism.

Castelli Gattinara (2017) outlines a general interpretative framework of the politics of immigration in Italy. The crisis of legitimacy in contemporary European

politics has led Italy to adopt a logic of exceptionalism. Instead of pursuing the normality that should apply to migration globally, Italy is attempting to curb the influx of migrants and asylum seekers. Institutional and mainstream actors have mirrored public anxieties and security concerns by endorsing narratives of emergency, aggressive policing, and militarized border controls. However, their inability to respond to public concerns has contributed to confusing migration with insecurity. This has created fertile ground for xenophobic reactions.

Research conducted in Italy has shown that migration has become a central topic in the social imagination. Immigration has become a key symbolic resource for the narrative that fuels the political communication of Italian parties. This interpretation shapes a primary cultural framework that creates a climate of moral panic. This, in turn, serves as a context for normalizing the exclusion of migrants (Nicolosi 2019). The migration narrative has been systematically organized on negative campaigns, blaming political opponents in old and new media (Lucchesi and Romania 2022). Moreover, the discourse on migration highlights a subalternity of center-left parties to right-wing parties, apparently intertwined with the great electoral success of these parties in recent national parliamentary elections (Dennison and Geddes 2022).

According to a comparative study on attitudes toward immigrants, Italian society is more prejudiced toward immigrants than Spanish society (Bello 2015). The study also found that extremist individuals increased in both countries during the years of socioeconomic crisis. Perceptions toward immigrants are influenced by several variables such as trust, solidarity, political orientation, age, personal happiness, education, and time spent in front of the TV. The media system in Italy plays a significant role in the polarization of public opinion on immigration issues (Villa 2018), as the media often present immigration-related news in a way that aligns with their political and ideological biases (Musarò and Parmiggiani 2022). Social media platforms are also fertile ground for the spread of misinformation and extremist views. The anonymity and lack of accountability on these platforms can encourage individuals to express extreme and divisive opinions, leading to the spread of hate speech, xenophobia, and racism (Tagliamonte 2019).

There is concern that online environments contribute to the spread of hate speech against immigrants (Lunaria 2020, Anselmi et al. 2022, Colombo and Quassoli 2022). Unfortunately, this wave of polarization and hostility continued to grow even during the COVID-19 pandemic (Openpolis 2022). Hate speech often takes the form of ethnic replacement theory, which was recently defended by a member of the current Italian government (2023). These theories portray immigration as a mechanism to replace Europeans with migrants from Africa and Asia. According to these theories, migration flows are valuable for ruling elites because they produce a more malleable and easily governed population (Pellegrino 2021). Some authors (Petrovich Njegosh 2023) argue that these theories intertwine racism and sexism, naturalize and reproduce them, and generate concrete consequences, including violent actions.

Despite this decadent political climate, Italy has implemented several policies to integrate migrants and refugees. These policies have focused on migration management and integration.

Italy has addressed several issues related to migration management, including illegal immigration, security concerns, crime problems, and the refugee crisis (Nese

2023). According to the Migrant Integration Policy Indicators (MIPEX), the country's approach to integration was rated as "halfway favorable" (Nese 2023). However, the reception system for migrants, refugees, and asylum seekers in Italy has been criticized for neglecting the people it is supposed to accommodate, creating disoriented individuals (Avallone 2021) who may end up in legal and social limbo (Della Puppa and Sanò 2021). Italy has also seen an increase in police checks on migrants and foreign nationals, resulting in the opening of detention centers for illegal migrants (Campesi 2015, Esposito et al. 2019). Italy recognized about 350 asylum claims per million inhabitants per year in 2020, a figure below the EU average of about 900 (Ambrosini 2022). The number of unaccompanied foreign minors has also increased due to the absence of legal channels for labor migration, asylum, and child protection (Ambrosini and Pozzi 2018). It seems that the attitude of the Italian authorities toward immigration responds both to a growing demand for personal security from native Italian citizens and to the anti-migrant rhetoric prevalent in the political arena (Quassoli 2021).

Based on available research, the overall economic, social, and political integration of migrants in Italy today can be assessed as mixed (IDOS Study and Research Centre 2022, Fondazione ISMU 2022).

The current right-wing government in Italy has allowed the entry of 452,000 foreign workers between 2023 and 2025 due to the need for labor by Italian companies and households. However, this does not guarantee full economic integration of migrant workers into the Italian economy. There are several barriers to entry into the Italian labor market, particularly regarding access to nonmanual jobs and career development, further exacerbated by widespread job insecurity (Zanfrini 2021). Moreover, regional imbalances in Italy make labor market integration policies less effective (La Bella 2020). Refugees and undocumented migrants in Italy also face significant challenges in finding legal employment, especially in the first years after their arrival (Ortensi and Ambrosetti 2021).

The issue of immigrant and refugee access to welfare services in Italy is multifaceted, and the territorial diversity of welfare policies plays a significant role. This diversity has led to regional imbalances, resulting in inequalities in access to services for both Italian and foreign citizens (Ibba 2021). The discrimination suffered by poor migrants and refugees, whether due to prejudice, political calculations, or bureaucratic rigidities, further exacerbates their difficulties in dealing with the Italian welfare system (Associazione per gli Studi Giuridici sull'Immigrazione - Centro studi Medì 2023). However, civil society organizations are working diligently to ensure that migrants have access to public services (Storato et al. 2021) and that their basic needs are met (Caritas Italiana and Fondazione Migrantes 2022).

Italian legislation allows only citizens of European Union countries to enjoy political rights, albeit limited to local elections. This limits political participation rights to a merely formal dimension of citizenship (Lo Presti 2016). Recent studies have shown that migrants in Italy are mainly inactive political subjects compared to native Italians (Ortensi and Riniolo 2020). Factors such as being female, having a low educational level, and residing in the southern regions of Italy and the islands are associated with migrants' political disengagement. However, the impact of European citizenship on improving political participation in Italy is negligible (Ortensi and

Riniolo 2020). Migrant groups show low levels of public engagement, confirming their marginality from Italian public discourse (Pilati 2018). Their engagement in civil society organizations is often limited to executive tasks (Moro 2013). However, some migrant groups appear to be active in social movements, particularly those fighting against discrimination and racism and for access to social rights (Lotto 2015, Zamponi 2017, Perrotta 2019, Caciagli 2021).

After analyzing the Italian model of migrant and refugee integration, many scholars conclude that it is a subaltern form of inclusion (Reyneri 2001, see also Maddaloni and Moffa 2019). This approach is based on institutional marginalization in the context of increasing job and life insecurity, as well as the growing prevalence of hate speech and discriminatory practices.

A Research on Migrant Shelter and Welfare Services in a Southern Italian Province

The problem we are discussing concerns the support provided to migrants and refugees. As seen in the previous section, public institutions and nonprofit organizations in this field are facing resource scarcity and increasing hostility from some sectors of the political system. We are interested in understanding (RQ1) how these problems are being addressed and (RQ2) what solidarity practices are used by public agencies and nonprofit organizations in this context. In addition, we are interested in understanding (RQ3) whether these practices succeed in changing the regime of subaltern inclusion of migrants in the labor market and local society. To answer these questions, we researched migrant and refugee support services in the province of Salerno. The latter is a large area in southern Italy, home to 1,057,819 inhabitants as of January 1, 2024; 55,158 (5.2 percent of the total) are foreigners[1]. The province of Salerno includes both urban centers and rural lowland and hillside areas and, therefore, has absorbed foreign labor in several sectors of the economy, especially in agriculture and family services. Although not a border area, it has received flows of migrants and asylum seekers from abroad, in compliance with recent state regulations designed to redistribute new arrivals and reception loads throughout the country.

During the summer and fall of 2023, we researched people working in public institutions and agencies involved in the reception and integration of migrants and refugees. To begin with, we collected documents related to the topic. Next, we developed a list of questions related to the broader research problem and created a form to conduct semi-structured interviews. This resulted in the following interview guide:

1. What is your opinion on immigration in this province currently?
2. What are the current reception procedures for the different categories of migrants arriving in this province according to the law?
3. How is your facility organized?
4. What activities are planned in your facility?

[1]Source: ISTAT. Last retrieval: June 4, 2024.

5. What kind of training is provided to staff responsible for reception services? Are training or refresher programs provided? Are language/cultural mediators available?
6. Are there services or benefits available to migrants at your facility?
7. What integration activities are planned for migrants? How does exit accompaniment work?
8. Can you tell me about the relationship between operators and guests at your facility?
9. In your opinion, what are the weaknesses of the system?
10. What measures do you think are needed to improve the shelter system in this province?

We interviewed twelve key informants (see Table 1). We selected interviewees from both public institutions and nonprofit organizations to ensure a balanced perspective on the topic. We conducted the interviews using the previous set of questions, transcribed them according to the procedures defined for semi-structured interviews (Silverman 2010, 2015), and analyzed the responses. Through this process, we identified a framework of views shared by key informants about migrant and refugee assistance in Salerno province. In the next section, we will present some findings to help us answer the research questions above.

Table 1. *List of Interviewees*

Name	Gender	Age group*	Sector	Level
Alessia	Female	Central	Nonprofit	Local
Andrea	Male	Senior	Public	Local
Angela	Female	Senior	Nonprofit	Local
Carla	Female	Central	Nonprofit	Local
Francesco	Male	Central	Nonprofit	Local
Gianni	Male	Junior	Nonprofit	Local
Laura	Female	Central	Public	Local
Luca	Male	Senior	Nonprofit	Local
Marta	Female	Junior	Nonprofit	Local
Sandro	Male	Central	Nonprofit	Local
Serena	Female	Central	Nonprofit	Local
Sofia	Female	Junior	Nonprofit	Local

*Age groups: Junior (18-29); Central (30-49); Senior (50 and over)

Research Results: Dealing with Political Hostility and Policy Contradictions in the Province of Salerno

The province of Salerno has been sheltering migrants and refugees for more than 30 years. Migrant support agencies are mainly located in three areas where the majority of the migrant population lives: the Nocerino-Sarnese countryside, the city of Salerno, and the Sele Plain (ISTAT 2024[2]). The first and last areas absorb foreign

[2]Source: ISTAT. Last retrieval: September 18, 2024.

labor mainly in agriculture, while in the urban area of Salerno, migrants find work mainly in the service sector. As in every area of Italy, nonprofit organizations are the leading providers of reception and care services for migrants from the South. The public sector oversees and controls the assistance work done by these organizations, with levels of involvement depending on the service provided. Nonprofit organizations must, therefore, maintain a delicate balance between general policy directives and the practical needs of the migrant population. Working closely with migrants and refugees, nonprofit organizations play a crucial role in identifying their needs as their first task. They are rooted in the local community, which allows them to gather valuable information that can be shared with government agencies (Gualdani 2021). "Third-sector entities are the operational arm of public agencies" (Laura, local politician[3]).

Although migrant shelter services are an established sector in the Italian welfare system, a coherent and shared framework is still lacking (Accorinti 2015, Peris Cancio and Accorinti 2023). Thus, third-sector entities manage the reception system in an emergency way (Pozzato 2024), deliberately reinforced by government policies (Lunaria 2023).

Third-sector workers usually describe the reception system in Salerno as "confused and distorted". The local reception system lacks material and non-material resources, which produces sloppy and emergency management of current migration flows to this area. Third-sector agencies try to offer the best protection to migrants, given the resources available to them.

> *We are not yet ready for reception, in general... There are so many gaps, and so many realities that live on their own and are not coordinated.... That is, each reality organizes itself and there is a lot of confusion* (Alessia, third-sector agency coordinator).

There are no active hotspots or first reception facilities in the Salerno area, but two types of second reception centers exist. On one side is the *Sistema Integrato di Accoglienza* (SAI: Integrated Reception System), the central pivot of the entire system, promoted by the Ministry of the Interior and entrusted to ANCI[4]. The SAI network consists of local authorities that choose to join it, accrediting third-sector entities to manage services. SAI shelters are reserved for protection holders (with some minimal exceptions). These centers follow relatively high standards. However, they do not offer adequate beds and facilities for the number of migrants and asylum seekers arriving in this province.

> *The SAI network involves reception in small numbers, in apartments, and the municipality always being co-manager, whether it's an SAI for minors or adults* (Alessia, third-sector agency coordinator).

The second type of facilities are the *Centri di Accoglienza Straordinaria* (CAS: Extraordinary Shelter Centers), reserved for asylum seekers. These facilities are

[3]In order to ensure the anonymity of the respondents, we changed their first names.
[4]*Associazione Nazionale dei Comuni Italiani*, National Association of the Italian Municipalities.

identified by the Prefecture[5], which entrusts their management to cooperatives or hotel facilities through tenders. The CAS network was created to address the insufficiency of the first network, but to date, it accommodates most immigrants.

> *The stay in a CAS should not last more than six months* (because) the *CASs are 'extraordinary'.* (...) *In reality, we all know that this is not the case, because the assignments go on for a long time. And this deeply corrupts the reception system!* (Alessia, third-sector agency coordinator).

Thus, while the work done by the SAI serves as a benchmark paradigm for the entire reception system, the experience of CASs is disappointing and ineffective. CASs are frequently run by private entities and are increasingly oligopolistic regarding ownership (Openpolis-Actionaid 2022). There are cases of CASs housing up to 100 people, run only by a manager and a night worker, so they are often called "dormitories". Due to continued state rate cuts, many local nonprofits are no longer bidding for contracts, leaving room for large private entities that can lower service costs.

> *I am currently the only operator in charge, while another guy works night shifts.* (…) *It is all very much in the willingness of those who run these facilities to do a good job. The problem with these centers is that they are affected by historical-political contingencies* (Francesco, CAS manager).

> *When you participate in a tender, you need an amount, a surety bond, and an insurance policy that covers you... We're talking about one or two million. Because when talking about people, they tell you, 'suppose something happens, you must have the money to feed them'* (Sandro, CAS manager).

On the contrary, in the SAI centers state guidelines push to ensure a broader range of services "at least on paper" (Serena, SAI center manager). Migrant care centers, while guaranteeing all guests basic needs such as shelter, food, clothing, and health, have sharp contrasts in the services offered. These variations arise from the unique organization of the reception centers or the network of contacts available to caregivers and migrants. There is a significant disparity between SAIs and CASs, with the latter offering a lower level of protection (Openpolis-Actionaid 2022). The emergency approach of CASs often leads to some rights not being respected (Guida 2017). For example, a crucial skill for integration, teaching the Italian language, is not guaranteed in CASs. This, along with the limbo of passive waiting during the asylum application assessment phase, makes it impossible for migrants to secure employment in the legal economy (Ruíz-Estramil 2018).

> *I think taking away the obligation of CASs to teach Italian language is stunting the people we take in. Language makes them autonomous, it makes them free more than money. I take care of the school enrollment, and then whoever wants to can participate or not because the trip is at their own expenses* (Angela, CAS worker).

In CASs, migrants are segregated because of their location, which, for some

[5]Peripheral body of the Ministry of the Interior whose main functions include public order and security.

informants, results from conscious political maneuvers to separate migrants into different spaces from those frequented by native citizens (Biffi 2018). However, these choices foster discrimination against migrants (Declich and Pitzalis 2021). These marginal and isolated places, locally known as "shacks", are difficult to reach without transportation, which many migrants lack. Finally, migrants may be perceived as distrustful by locals, discouraging their integration into the local economy and society, as they lack the necessary means for independent integration.

> *The migrant is good at helping us until 4 p.m., but after that, he bothers us because of the bicycles and the smell of food... He should disappear. This, in my opinion, helps us understand how the migrant is perceived here* (Angela, CAS worker).

In contrast, educational and vocational training to promote migrant self-determination is generally provided in SAIs. SAI centers are small reception facilities that offer comprehensive support teams and Piani educativi individuali (PEI: Individual educational programs). The goal of the PEI is to promote the person's self-determination (Boccagni 2017). However, due to the overload of providers, the PEI may not be fully elaborated, reducing the migrants' care path to a series of standard steps and neglecting their natural inclinations.

> *The PEI should be individualized, but honestly, this is not done. Instead, we tend to have a standardized pathway: we send them to school for literacy because we think that's what they need, and then maybe, in reality, the level is higher, and they go through frustrations... Then we send them to work in restaurants because we think that's the quickest and easiest way to learn the language and a trade; instead, maybe they are brought here for something else. But time is short, and there are so many things to do. In this, my community is very lacking. However, there was no PEI at all in the other community I was in* (Serena, SAI center manager).

The scarcity of human and economic resources also pushes migrant care centers toward an emergency-oriented mode of operation (Biffi 2018). These increasingly difficult working conditions can weaken the professional identity of third-sector workers (Peris Cancio and Accorinti 2023). Emergency conditions limit the spaces teams should use for discussion and the search for innovative solutions (Peris Cancio and Accorinti 2023), which have become a luxury (Boccagni 2017). This dynamic contributes to professionals' desire for individual training to build recognizable expertise (Gallotti and Tarabusi 2018). From this point of view, many interviewees agree on the growing need for adequate professional training, which is sometimes relatively scarce in Salerno's migrant shelters. Training is also needed for new professional figures because of the increased migration to Italy, namely linguistic-cultural mediators. In Italy, this profession is subject to multiple definitions (Pokorn and Mikolič Južnič 2020) and little regulation. This is especially true regarding the minimum required levels of language skills, education, or training (Ciribuco and Federici 2024). These workers can bridge the cultural gap between migrants and the host society. Therefore, their skills are considered an essential resource by any migrant support authority. However, there are very few of these workers in Salerno province, and they cannot meet the many needs of the migrant population. For this reason, they are replaced by more

experienced migrants based on their cultural proximity to the newcomers or by local people with some language skills (Peris Cancio and Accorinti 2023). However, according to many informants, this practice may highlight cultural differences between Italian service providers and migrants from the Global South.

> *The language mediation degree has come about recently, just with the increase in immigration. Also, there are cultural mediators. I, for one, am a cultural mediator, but simply because I did my language studies before '90. Imagining that I only speak languages, I would be a cultural mediator for whom?* (Carla, cultural mediator).

Guida's (2017) research on CASs suggests a power imbalance in the relationship between migrants and operators. Within this framework, the migrant is often in a passive position, pressured to accept the choices defined by operators. For example, when a migrant's need is not considered primary by operators, its fulfillment is subject to careful assessment by the team (Biffi 2018). On this point, our research provides a different cue: a warm and familiar atmosphere is often created between social workers and migrants in Salerno's reception centers, thanks to the commitment to the work of the local workers interviewed. However, even this feature of the local migration policy system, if not appropriately managed, could complicate the achievement of the goals of the entire system, causing friction within and between teams and confusing migrants about the "real" role of the operators.

> *There are problems because it is a very personal relationship. And when you are dealing with the personal aspect, it triggers a number of dynamics. Meanwhile, it should be a professional relationship, not one of detachment but of proper detachment from one's temperament, from being perhaps maternal, paternal, affectionate, or rigid. Professionalism lies in that, in trying to understand their personality, in trying to put your own aside a little bit, and remembering that you are there to be an educator. (...) This creates dynamics that produce imbalances and generate new problems. It is a difficult job because it involves you totally. You are dealing with people who are not like you in other services. This leads all the operators to think about leaving at some point because it is totalizing (*Serena, SAI center manager).

Civil Servants, Social Workers and Migrants: Practicing Solidariety

When working with migrants, there can be conflicts between what grassroots practitioners want to achieve and what is realistically possible. Bureaucratic difficulties are often the main obstacle for third-sector workers. These obstacles can block migrants' enrollment in schools or training centers. As a result, funds allocated for migrants' self-determination become unusable. This leads social workers to make ethically difficult choices. For example, economic hardship may cause workers to push migrants to accept demanding jobs, even though they know they are promoting labor exploitation.

> *The world of work in Salerno is one of exploitation. It is mainly made up of irregular labor and underpaid, so it is difficult to put the concept of right to work back into play. As an educator, I have to tell the boy, "There is nothing better than this, so take it", when I know very well that this is not true. It is hard work where you are frequently exploited and underpaid* (Gianni, SAI worker).

Due to precarious working conditions, workers are subordinate to their employers (Gallotti and Tarabusi 2018) and may face economic insecurity (Cammelli and Tarabusi 2023). This prompts service workers to seek the most appropriate solution for each situation through strategic approaches, usually "shortcuts" consisting of informal arrangements between social workers working in different agencies or between third-sector workers and local government officials.

> *On the one hand, you are forced to see the profit of the cooperative, which is also your salary, and on the other hand, to bring home the results for the migrant. It's quite tricky... In some cases, you win; in others, you are forced to give in, but if you are smart, you can cheat the system* (Gianni, SAI worker).

Frontline practitioners may experience excessive workloads amid public authorities' neglect of their work (Bellinvia 2022). As a result, the relationship between public agencies and their stakeholders sometimes becomes problematic. To address this problem, stakeholders can ask local governments to fulfill their duties through "shared administration" procedures (Gualdani 2021). Practitioners of third-sector organizations try to promote dialogue with public officials to highlight problems and opportunities. However, this practice is not commonly used in the province of Salerno, although it is required by law.

> *You try to maintain constant communication, but you don't always succeed. There is a law done very well establishing the committee at the prefecture, which was provided where there were, or rather were convened by the prefecture both the police headquarters and all the social partners... And it was a committee where the real problems faced at that time were discussed, so there was an almost six-monthly comparison... But these meetings were not convened again for years* (Luca, immigration lawyer).

Not surprisingly, third-sector practitioners have different views than public officials regarding immigrant services. While practitioners emphasize the need for networking and communication among different actors to strengthen the system, civil servants believe that the current situation is already the best possible.

> *The existing shelter system is very functional. The SAI centers and CASs are well-tracked and well-monitored. They work very well, and we have visited the children several times with the mayor* (Laura, local politician).

The flaws in a fragile and complex system create opportunities for alternative and informal support activities. Migrants who have difficulty obtaining regular labor contracts can often resort to undeclared work, fueling forms of "informal welfare" (Pozzato 2024). In some sectors, such as agriculture, many workers are migrants

(Caruso et al. 2024). In addition to labor shortages (Corrado et al. 2024), this trend may be driven by entrepreneurs' preference for easily exploitable and replaceable workers (Caruso et al. 2024). This phenomenon is common in Salerno province, an area with a viable agricultural and livestock background. Many informants confirm that immigrant labor is crucial to local businesses and that the entire local economy would suffer without it. Labor in agriculture and livestock is traditionally handled through *caporalato* (corporalism), an illegal labor system based on intermediaries (*caporali*, literally "corporals") (Avallone and Niang 2018, Avallone 2023).

> *What I try to do is a battle against* caporalato*. And of course, in an agricultural area like our plain, it is the first and the biggest problem that these people face* (...) *it is not easy, because they rightly need money* (Francesco, CAS manager).

However, according to some informants, this type of labor exploitation is no longer so widespread. Instead, we see a new "service corporalism", in which more experienced migrants offer informal support to their recently immigrated compatriots (Avallone 2023) seeking work and housing. These services are provided for a fee (Molinero Gerbeau 2018) and are often the result of a lack of formal support networks (Avallone and Niang 2018). On this point, interviewees agree that public institutions usually disregard this practice, as it helps them achieve their goals despite limited resources and on-the-job training. The high degree of policy inertia on the issue of migrant labor (Pozzato 2024), particularly in the agricultural sector, creates forms of "differential inclusion". In particular, migrant agricultural labor does not lead to social and civic inclusion and regularization (Caruso et al. 2024). In the case of the Sele Plain, Avallone (2017) highlights the constant and repeated violation of migrants' rights.

> *Suppose we call a fellow citizen who knows where to look for work or accompanies people to look for work a corporal. In that case, I have to think of "service corporalism," as an egregious colleague of mine calls it, because it goes to make up for structural deficiencies in services. It always takes someone deeper than us who knows these dynamics, and this someone is not as legal as the job center or the trade association.... But you see the compatriot with a good heart and will, which is then not the case because the compatriot charges for this service little, but he still charges* (Alessia, third sector agency coordinator).

Sometimes, service workers may adopt gimmicks to issue a residence permit, which is the only document that allows the migrant's regular presence on Italian territory. By adopting these stratagems, service workers, while aware of the irregularity of their actions, ensure housing and a minimum of assistance for migrants (Bellinvia 2022).

> *In one case, we had to take a migrant to apply for asylum, which he was not entitled to because he was not from a nation for which asylum could be claimed. It was the only way to put him in the SAI as an asylum seeker and then ask for an adjustment for work, a gimmick. That way, I was able to find him a bed in the area, so he kept his job, his relationships, and most importantly, a place to sleep* (Serena, SAI center manager).

Other times, practitioners try to help the migrants or through the network of activists in the area. Migrants are sometimes housed in mosques or temporary facilities that allow them to find shelter. These are makeshift solutions, often blocked by police forces. These initiatives by civil society or NGOs can sometimes be criminalized by public actors (Fontanari and Borri 2017), while in other cases, they are tolerated (Ambrosini 2017). In general, however, the figure of the worker-activist does not enjoy the consideration of local authorities due to the propensity of these workers to protect the rights of foreign workers rather than to adapt their activities to the system of subaltern inclusion of migrants (Bellinvia 2022).

> *We don't have facilities like dormitories or guest houses. Communities or mosques take over... Then DIGOS*[6] *comes and does evictions, it's not a solution* (Alessia, third-sector agency coordinator).

The promiscuous conditions in which migrants sometimes live give rise to an increasing demand for long-term health care. Without an adequate care network, local actors develop key solidarity actions to provide immediate health support to migrants.

> *I mention the case of a boy who had heart surgery. We all mobilized to secure this life-saving surgery for him. We are talking about a 21-year-old boy who was destined for certain death and is now doing well! And so, I say, I save one life and you save another. If everyone does their part, the final product becomes meaningful* (Andrea, national health service physician).

In conclusion, the sheltering of migrants in Salerno province is uneven and inadequately planned. Service providers stress the need for a comprehensive review of current mechanisms, starting with eliminating the idea of emergency and providing adequate resources to support the arrival of migrants and refugees in the province. Meanwhile, they develop informal solidarity practices to solve migrants' daily problems. However, these practices do not alter the regime of migrants' subordinate inclusion in the labor market and local society.

Conclusive Remarks

Qualitative research aims to describe current practices among actors engaged in a given field of social action (in this case, migration policies at the local level) and outline the main features of their shared common sense.

In Italy, the issue of immigration has turned into a political crisis, but not because of the growth of migration flows: the foreign population has remained relatively stable over the past decade. Instead, the media and political instrumentalization of

[6]The acronym stands for *Divisione Investigazioni Generali e Operazioni Speciali* (General Investigations and Special Operations Division). It is a department of the Italian *Polizia di Stato* (State Police).

immigrants as scapegoats for economic stagnation, the state's fiscal crisis, and cuts to the welfare system have exacerbated the situation, raising serious social concerns.

As we have tried to show above, this hostile political climate generates public policies of outsourcing social services and insufficient collaboration among institutional actors involved in the issue, which sometimes appears as a strategy to contain and limit migrants' rights and demands. In this context, the role of the third sector is crucial in managing much of the reception and care services.

Our research highlighted the strong commitment of service providers to ensuring decent living conditions for migrants and refugees in the province of Salerno. We have seen how they try to move away from the logic of emergency to build concrete pathways of reception and integration. However, the complexity of the context can condition operators' actions.

Their response can take two forms. Many operators react to this condition of marginality with determination, investing in their professional training (Boccagni 2017) and activating a network of assistance, sometimes even informal. These are the so-called operator-activists. Through their experience, operators manage to juggle with ingenuity and determination the complex web of public policies, from regulatory failures to the growing scarcity of human and material resources (Bellinvia 2022). This, however, results in a paradox: practitioners are often pushed to operate on the margins of legality to achieve expected results, giving rise to new and even deeper policy contradictions.

In other cases, the contradictions may generate a sense of frustration in operators. Precarious working conditions and excessive workload are behind the continuous turnover of operators in reception centers (Peris Cancio and Accorinti, 2023). In addition, insufficient resources are available for migrant services, and the high denial rate of residence permits discourages operators' efforts (Biffi 2018). This last aspect mainly concerns the reception in CASs, which is considered the main weak point regarding assistance to migrants received in the Salerno area.

The province of Salerno is not ready for an effective immigration policy. The issue of immigration is managed and experienced by the actors involved as a network of informal relationships between operators (and operators and migrants). The resulting solidarity practices are the primary driver of migrant and refugee care pathways in the Salerno area. However, they risk consolidating as merely informal networks of assistance.

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Times Higher Education University Rankings: Top 100 Best Universities by Country (2011–2025)

*By Gregory T. Papanikos**

This paper uses the Times Higher Education (THE) university rankings to examine the convergence and concentration rates of the top 100 universities from 2011 to 2025. In particular, the number of universities per country in the top 100 list is of interest in this study. The list is dominated by a very few countries, notably the US, UK, Germany, and the US, which account for an average of 64% of the total number of universities in the top 100 list. The top eight countries account for an average of 85% of the total number of universities in the "industry." The Herfindahl-Hirschman Index (HHI) has indicated moderate competition since 2013. In 2011 and 2012, the market showed signs of oligopolistic competition. During this period, the HHI declined, indicating an increase in competition between countries in the top 100 list of universities.

Keywords: *Times Higher Education, US, China, Top 100 Universities, Convergence, Concertation, CR4, CR8, HHI*

Introduction

University rankings and evaluations have been an integral part of higher education processes. This paper examines the university rankings published by Times Higher Education (THE) from 2011 to 2025, focusing on the distribution of the top 100 universities by country. The aim of the paper is to analyze changes in the country concentration rate among these top-ranking universities. The selection of the top 100 universities is somewhat arbitrary. However, this group holds particular significance because top universities compete internationally for the best students, faculty, and researchers. Such competition ultimately attracts more funding to these institutions.[1]
There are two types of competition in higher education. First, there is competition between universities, independent of the countries they are located in. Second, there is competition between countries. This paper focuses solely on the competition between countries.

Countries compete to have as many of their universities as possible included in the top rankings, driven by reasons beyond strictly educational objectives—prestige

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[1]There are many other indices that rank universities, such as the QS rankings, for example. However, we focus on this index because it appears to be the most popular. Additionally, we concentrate on the top 100 universities, as these institutions typically attract international attention. Numerous studies analyze university rankings at the country level. For instance, Alduais (2019) examines university rankings in Saudi Arabia. Similarly, Almutiry et al. (2022) investigate higher education in Saudi Arabia, focusing on a single institution: Northern Border University. The internationalization of German universities is explored by Evrim Altin (2019). At the European Union level, Osmanović Zajić and Maksimović (2023) evaluate the Bologna Process, while Al Ghawiel (2020) assesses the Libyan education system.

among them. For some countries, building top universities serves broader purposes, such as economic, political, social, and cultural goals. However, these aspects are not examined in this paper.

In this study, I approach the top 100 universities globally as representing a single industry, with countries acting as firms operating within this industry. The number of universities a country has in the top 100 effectively represents its market share. Consequently, the absolute number of universities from a given country in the top 100 equates to that country's market share in this global industry.

Using these market shares, I estimate the level of convergence between countries and analyze the concentration rate of the international market for the top 100 universities. For convergence, I examine the trajectory of the standard deviation of the number of countries represented in the top 100 list. For concentration, I use metrics such as the CR4, CR8, and Herfindahl-Hirschman Index (HHI).

This paper is organized into five sections, including this introduction. The next section measures convergence by (a) the number of countries with at least one university in the top 100 list, and (b) the time trend of the standard deviation of the number of universities per country. The third section examines the concentration rate of the "industry" using two standard indices from the literature of industrial organization. The final section concludes.

Higher Education in the Academic Literature

Higher education has been the subject of extensive academic research, reflected in numerous books, papers, conferences, and other scholarly events. For instance, the Athens Institute has organized conferences on education and higher education since 1995 and 2017, respectively, resulting in many book publications, including abstract books of these conferences. Many of these books address topics related to higher education. A notable example is a book edited by Papanikos and Pappas (2010), which includes several papers on higher education. Programs and abstract books for the two conferences are available at https://www.atiner.gr/education and https://www.atiner.gr/coledu, respectively.

Since 2014, a dedicated academic journal, *The Athens Journal of Education*, has focused on education, publishing numerous papers on higher education. Additionally, specific roundtable discussions have been organized on various issues related to teaching and researching in a globalized world. For details, including programs, presentations, and videos, see https://www.atiner.gr/event.

In this section, I briefly review the issue of higher education as examined in the aforementioned publications and forums. As I have discussed in Papanikos (2025c & 2025d), since ancient times—particularly during the golden era of ancient Athens — education, and higher education in particular, has served specific roles. One such role is to equip students with the skills and knowledge necessary for a trade or profession, enabling them to build careers and potentially change their social status. In many poorer countries, education remains the primary means for individuals from disadvantaged backgrounds to advance. For instance, Afriyie & Boohene (2014) examined how education fosters an entrepreneurial culture among students in Ghana,

aiming to transform them into job creators. This study is particularly significant as it highlights that entrepreneurial culture transcends specific fields of study. Similarly, Sodha et al. (2024) explore the topic of entrepreneurial education.

Beyond professional development, education plays a vital role in shaping better citizens, enabling them to manage their households and their *politeia* (community or state) more effectively. Higher education serves as the foundation for a better society, often associated with the ideals of a robust democracy. As I have argued in Papanikos (2022), the bright future of democracy lies in education. The relationship between good citizenship and education has been explored by numerous studies emphasizing ethical and moral behavior as well as community engagement. Notable contributions include works by Mortari & Ubbiali (2021), Muthanna (2022), Nicolaides et al. (2022), Tezera Taye & Alduais (2022), Vidanec (2014), and Wawrzinek et al. (2017).

Universities exist to serve students. Consequently, university rankings are a valuable resource for students to identify institutions that align with their abilities, aspirations, and potential. Various aspects of the student experience in higher education, including their relationships with teachers, have been explored by researchers such as Aloka (2023), Andrade (2014), Artar et al. (2021), Bardorfer (2024), Enesi & Trifoni (2023), Idzikowski (2014), King et al (2021), Nguyen (2024), Papaieronymou (2017), Rudd & Honkiss (2020), Sousa & Mangas (2024), Tezera Taye et al. (2022), Tzanakis (2015), and Unruh (2015).

Many studies focus on the development of higher education at the national or program level. For example, Cabau (2014) examines higher education in Hong Kong, highlighting its emergence as a significant university hub. Daniel & Burgin (2019) analyze the development of an English program in Ecuador, while Didou Aupetit (2015) addresses issues of equity in Latin America. Egne (2022) investigates educational practices in Ethiopia, and Rautenbach et al. (2023) examine the role of universities in rural South Africa. The university-industry nexus in Turkey is explored by Dayioglu Ocal & Kavak (2018), and motivation in Lebanese higher education is studied by Hussein et al. (2016).

As highlighted below, researchers and universities across different countries often collaborate on research projects and innovations. Regional organizations, such as the European Union, frequently support these efforts. For example, Cyran (2023) evaluates the Horizon program. Universities, as organizations, require effective management to function optimally. Various aspects of university management have been analyzed by Peterson (2014) and Walsh (2019).

One of the most significant developments in global higher education has been the rapid technological advancements enabling online education, particularly in response to the challenges posed by COVID-19. Distance and related costs have largely been mitigated. Studies addressing this transformation include Bennett & Abusalem (2024a & 2024b), Jereb et al. (2023), Katz (2014), King et al. (2021), Lecon & Oder (2016), Oberhelman & Dunn (2019), and Tarbutton & Doyle (2023).

In conclusion, this eclectic review of the literature on higher education reveals that the field has become more internationalized than ever before. University rankings serve a critical function by providing valuable guidance to the global education community, including students, parents, teachers, researchers, and other stakeholders in higher education.

Global Representation in the Top 100 Universities

Table 1 presents data on the countries and the number of universities appearing at least once in the Top 100 Universities List from 2011 to 2025. The total number of universities exceeds 100 in some years because the last position was shared by multiple universities. This occurred in 2013, 2014, and 2018. While this 15-year period is too short to infer long-term trends, several notable observations can be made.

Countries are listed in descending order based on the number of universities in the final year (2025). Their rankings for 2025 are shown in Figure 1. That year, the US ranked first with 38 universities, followed by the UK with 12. These two countries consistently held the top two positions throughout the analysis period (2011–2025).

In total, 22 countries appeared in the Top 100 list over the 15 years. The table's last column indicates the frequency with which each country appeared at least once. Eleven countries were featured consistently throughout the entire period.

Eight other countries had intermittent appearances. For example, the Netherlands appeared 14 times, Belgium 13 times, and Finland 10 times. Denmark was listed five times, while Ireland, Taiwan, Italy, Turkey, and Russia each appeared only once.

A significant issue not explored here is the relationship between population size and the number of universities on the list. Interestingly, smaller countries such as Sweden and Switzerland had at least one university ranked in the Top 100 every year, making it worthwhile to compare their populations with those of larger nations like China and the United States.

Table 1 also reveals distinct trends. Notably, the number of US universities in the Top 100 appears to be declining. In 2011 and 2012, more than half of the top 100 universities were based in the US. However, this figure dropped below 50 in 2013 and has consistently remained under 40 in the following five years.

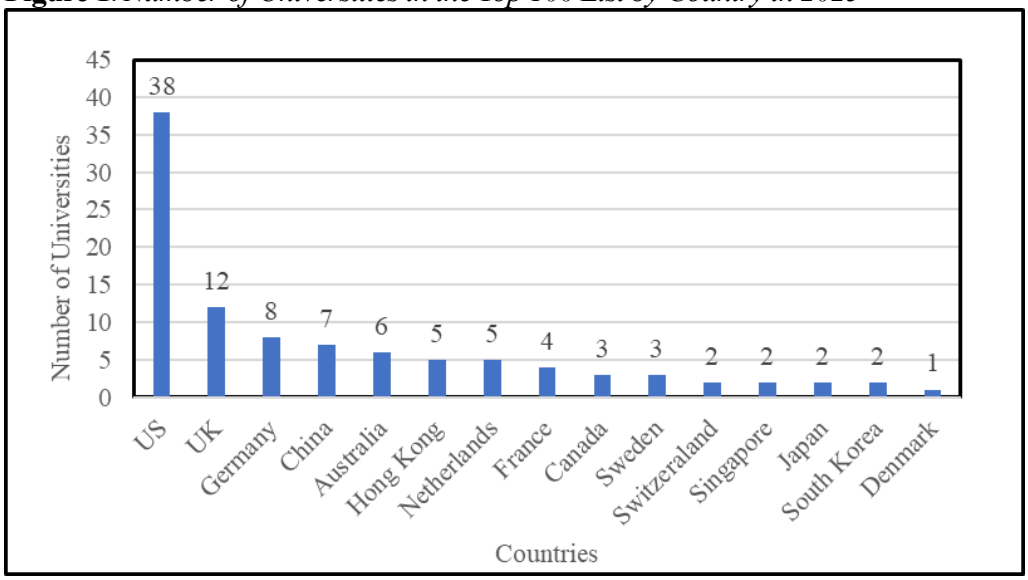
Table 1. *Countries with at Least One University on the Top 100 Best List*

	Year / Top-100	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	f
1	US	53	51	47	46	45	39	41	43	41	40	37	38	34	36	38	15
2	UK	14	12	10	11	11	16	12	12	11	11	11	11	10	11	12	15
3	Germany	3	4	4	6	6	9	9	10	8	8	7	7	9	8	8	15
4	China	3	2	2	2	2	2	2	2	3	3	6	6	7	7	7	15
5	Australia	5	4	6	5	5	6	6	6	6	6	6	6	7	6	6	15
6	Hong Kong	2	2	2	2	2	2	3	3	3	3	3	4	5	5	5	15
7	Netherlands		4	7	8	6	8	8	7	7	7	7	7	7	6	5	14
8	France	3	3	4	3	2	1	1	1	2	3	3	3	4	4	4	15
9	Canada	4	5	5	4	4	4	3	4	5	5	5	5	4	3	3	15
10	Sweden	2	3	2	1	3	3	3	3	3	2	1	1	1	2	3	15
11	Switzeraland	4	3	3	3	3	2	3	3	3	4	4	3	4	3	2	15
12	Singapore	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	15
13	Japan	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15
14	South Korea	2	2	3	3	3	1	2	2	2	2	2	2	3	3	2	15
15	Denmark						1	1				1	1			1	5
16	Ireland	2															1
17	Belgium		1	2	2	2	1	1	1	1	1	1	2	1	1		13

18	Finland		1	0	1	0	1	1	1	1	1	1					10
19	Taiwan											1					1
20	Italy					1											1
21	Turkey					1											1
22	Russia														1		1
	Total Universities	100	100	101	101	100	100	100	102	100	100	100	100	100	100	100	

Source: Times Higher List (https://www.timeshighereducation.com/world-university-rankings/latest/world-ranking#!/length/100/sort_by/rank/sort_order/asc/cols/scores)

Figure 1. *Number of Universities in the Top 100 List by Country in 2025*



The next section examines whether this trend indicates long-term convergence. It also explores the political debate surrounding China's rise in global university rankings, addressing the question of whether China may surpass the US in the coming years and establish itself as a global leader in innovation. I have examined the issue of innovation competition between China and the US in Papanikos (2025a).

Global Convergence

I have borrowed two important concepts from the economics literature. The first is the convergence rate, which was applied to analyze country achievements in terms of how many universities were able to make it onto the top 100 list. Convergence rates are typically used to analyze the convergence of per capita GDP among different groups of countries. The convergence issue is discussed in this section.

The second concept is the concentration rate, borrowed from industrial economics literature. I treat the international higher education provision as a kind of "industry," with various countries acting as the "firms" of this industry. The issue of concentration is examined in the next section.

If knowledge is widely disseminated, countries that invest in top universities may secure at least one prominent institution in global rankings. Higher education has

become an international market characterized by the high mobility of students, faculty, and researchers. Many students worldwide aspire to study at top universities, and rankings, such as those presented in the previous section, help guide their choices among thousands of institutions globally.

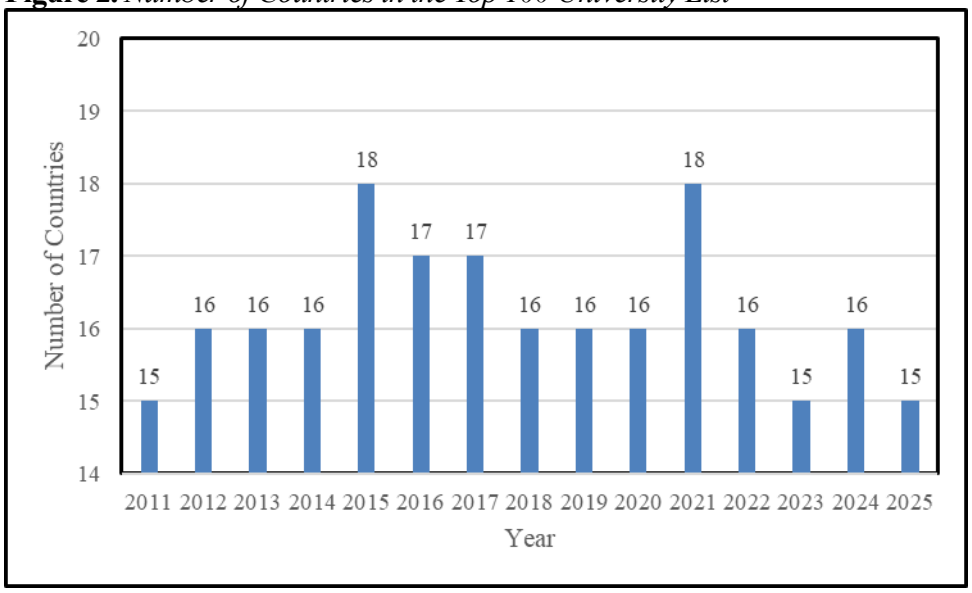
Professors and researchers follow similar migration patterns, often seeking opportunities to study, teach, and conduct research at leading universities. This competition is fierce due to its economic, social, political, and cultural implications. A notable rivalry exists between the US and China in attracting top talent, which, in turn, enhances the rankings of their universities.

This section analyzes trends in the rankings of countries with at least one university featured during the 2011–2025 period. Figure 2 illustrates the number of countries represented in the Top 100 Universities List each year. Presumably, the higher the number of countries, the higher the convergence, meaning that more countries are represented in the top list and the distribution is more equally spread around the world. However, convergence may also occur if the existing countries in the list redistribute universities from those with above-average representation to those with below-average representation.

The highest number of countries, 18, appeared twice: in 2015 and 2021. This was followed by 17 countries, which also appeared twice, in 2016 and 2017. The minimum number of countries, 15, was recorded in three years: 2011, 2023, and 2025. In the remaining eight years, 16 countries had at least one university in the Top 100, making 16 both the mode and the median of the distribution.

The average number of countries across the period is 16.2. The range is narrow, spanning just three countries, and the standard deviation—a measure of variation—is less than one (0.94).

Figure 2. *Number of Countries in the Top 100 University List*



The evidence suggests that the elite countries form a nearly closed club, consistently dominating the rankings. This indicates minimal convergence between these countries and those outside the elite circle.

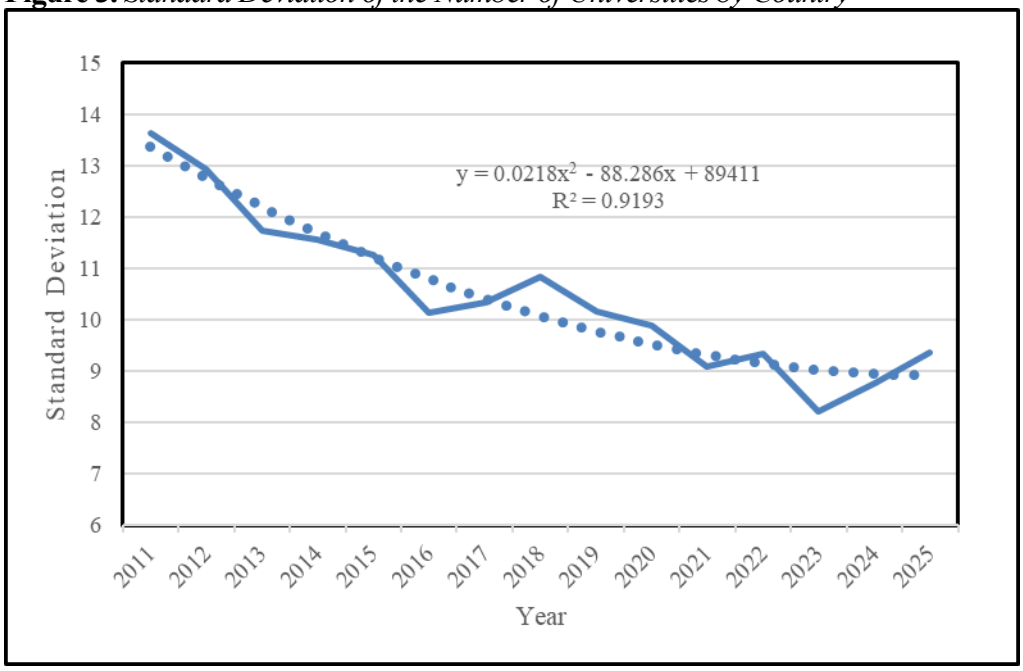
Another aspect of convergence is whether differences in the number of universities within the elite group are narrowing. As previously noted, the US has seen a decline in the number of ranked universities, while Germany and China have experienced growth. But how does this affect the overall performance of the elite group?

One way to measure this type of convergence is by examining the trend in the standard deviation of the number of universities each elite country has in the rankings annually. A decreasing standard deviation would indicate convergence. Figure 3 illustrates the evolution of the standard deviation from 2011 to 2025.

The most apparent observation is that the standard deviation decreased from a peak of 13.64 universities in 2011 to its lowest value of 8.1 universities in 2023. However, it increased slightly in 2024 and 2025, reaching 8.75 and 9.35, respectively. The overall decreasing trend is best approximated by a second-degree polynomial, indicating that the rate of decrease is slowing over time. This suggests that some differences will persist, reflecting factors such as population size, government policies, and societal attitudes toward education and research. The examination of these factors is not the focus of this paper.

It can be concluded that there is a non-linear trend of convergence between the elite countries—that is, the countries that have consistently appeared in the top list throughout the period from 2011 to 2025.

Figure 3. *Standard Deviation of the Number of Universities by Country*



In the next section, we borrow from industrial concentration literature to introduce measures that account for the concentration rate. As mentioned above, we treat each country as a firm, with the number of universities representing the "firm's" output. In this case, the "industry" refers to the Top 100 University List.

Measuring Concentration

As mentioned above, the ranking of higher education institutions can be analyzed using an economic methodology that is part of industrial organization analysis. In this context, countries are treated as "firms" competing in the "industry" of the top 100 universities. The number of universities on the list are the "products" they are able to sell in this "industry."

The competition between countries can be measured using two indices: the Concentration Ratio (CR) of the top X countries and the Herfindahl-Hirschman Index (HHI). In this study, based on the data presented in Table 1, I specify X as being equal to four and eight, symbolized by CR4 and CR8, respectively.

In what follows, I discuss these indices and present the estimates using the data from Table 1.

The Concentration Ratio for the Top 4 Countries (CR4)

The CR4 is defined as follows:

CR4 = Market Share of Country Ranked Number 1 +
Market Share of Country Ranked Number 2 +
Market Share of Country Ranked Number 3 +
Market Share of Country Ranked Number 4 +

The CR8 is defined as the sum of the shares of the top 8 countries in the ranking of the number of top 100 universities.

Herfindahl-Hirschman Index (HHI)

The HHI is given by the following sum:

$$\text{HHI} = \sum_{i=1}^{v} Si$$

Where:

S_i = Market share of country i
v = Number of countries on the top 100 list

The strength of competition can be measured using the HHI index. Three cases of competition are of importance:

(1) If HHI < 1,500, then the industry is characterized by a low concentration rate, i.e., the market for elite universities can be considered competitive.
(2) If 1,500 < HHI < 2,500, then there is moderate concentration.
(3) If HHI > 2,500, then there is high concentration, i.e., the market for elite universities can be considered less competitive.

The difference between the CR index and the HHI is that the latter takes into consideration the entire distribution of market shares, while the former considers only the top countries.

Table 2 reports the estimation of CR4, CR8, and HHI using the country shares from the 2011-2025 period. Summary statistics are given in the bottom five rows of the table. It should be noted that the higher the value of the index, the less competitive the market is, and therefore fewer countries dominate the international university market.

In 2025, the share of the top four countries was 65%, and the share of the top eight was 85%. The average CR4 index was 64.4%, with a maximum value of 60% in 2023 and a maximum of 73% in 2011. The average value of the CR8 index for the entire period from 2011 to 2025 was 82.2%, with a minimum value of 79% in 2015 and a maximum value of 85% in 2025.

The standard deviation measures the variability of the data, and for the CR4 and CR8 indices, it is 3.36% and 1.52%, respectively. However, given the large differences in their means, the CR4 and CR8 variability cannot be compared using standard deviations. Instead, I calculated the coefficient of variation, which takes into account the differences in the average values of CR4 and CR8. The CVs are reported in the last row of Table 2. The CR4 variability is much higher than that of the CR8; the latter shows relatively higher stability.

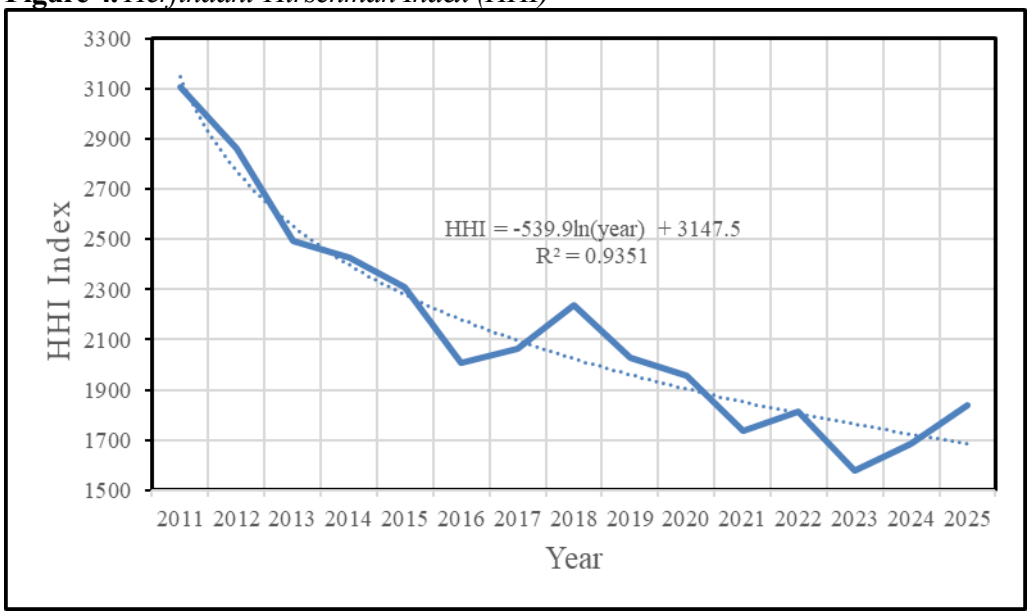
Table 2. The *CR4, CR8 and the HHI Indices*

Year	CR4	CR8	HHI	Competition
2011	73%	83%	3110	Oligopolistic
2012	69%	82%	2864	Oligopolistic
2013	63%	82%	2493	Moderate
2014	65%	83%	2427	Moderate
2015	64%	79%	2312	Moderate
2016	66%	83%	2008	Moderate
2017	64%	82%	2062	Moderate
2018	67%	84%	2240	Moderate
2019	63%	81%	2030	Moderate
2020	62%	81%	1956	Moderate
2021	61%	80%	1736	Moderate
2022	62%	82%	1812	Moderate
2023	60%	83%	1576	Moderate
2024	62%	83%	1684	Moderate
2025	65%	85%	1838	Moderate
Average (μ)	**64.4%**	**82.2%**	**2143**	**Moderate**
Maximum	**73%**	**85%**	**3110**	**Oligopolistic**
Minimum	**60%**	**79%**	**1576**	**Moderate**
Standard Deviation (σ)	**3.36%**	**1.52%**	**437**	

Coefficient of Variation (μ/σ)	**4.69%**	**2.35%**	**20.4%**	

The problem with CR4 and CR8 is that they do not take into account all the values of the distribution. The HHI, however, does consider all shares. The estimates of HHI are also reported in Table 2. Figure 4 depicts the trend, which can be best captured by a semi-logarithmic function. The average value of the HHI index was 2143, indicating moderate competition. The highest value occurred at the beginning of the available data period, with a value of 3110, which is similar to the CR4 index but not to the CR8. The same is true for the minimum value, which for the HHI measurement occurred in the same year as the CR4, in 2023.

Figure 4. *Herfindahl-Hirschman Index (HHI)*



The semi-log trend line in Figure 4 shows that competition is increasing, albeit with some ups and downs. It should be noted that this applies only to the top 100 list of universities and the few countries represented there. If all universities worldwide were included, the story might be different, but not much different, considering that the countries with universities in the top 100 list are those with a relatively large number of universities. This important issue is left for future study.

The China-US "Rivalry" for the Top Universities Rankings

One issue with political and mass media interest is the alleged rivalry between the US and China. During the era of mercantilism, when trade secrets were a key international comparative advantage, such rivalries made perfect sense. Today, however, this is no longer the case. The high international mobility of students, teachers, and researchers has rendered national identities less relevant in this context.

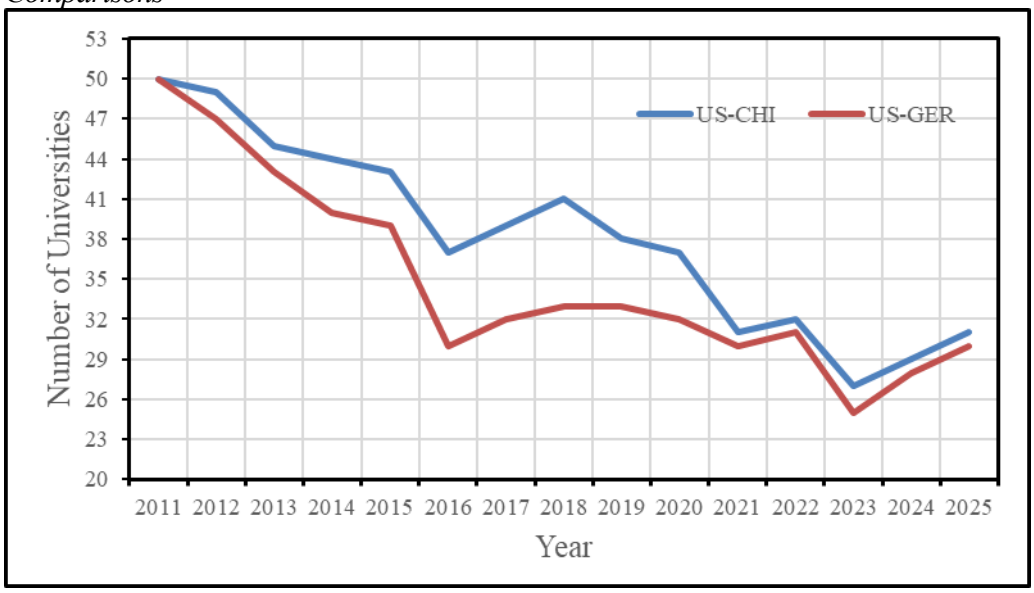
Nonetheless, it is still a worthwhile exercise to examine how top performers rank in terms of the number of universities on the top 100 list.

As I explained in my paper on the innovation gap between the US and China (Papanikos, 2025a), the disparity in the number of top universities is significant because it is at these institutions that new ideas and innovations emerge. However, equally important is the rate of convergence between countries. The raw data reported in Table 1 above clearly show that the number of US universities in the top 100 is declining. This decline could be attributed to a deterioration in the performance of US universities, improvements in universities from other countries, or a combination of both.

Given the political tensions fueled by the rivalry between the US and China, it is worth analyzing the difference in the number of universities from each country that make it to the top 100 list. Specifically, I address the question: Is the improvement in Chinese universities relative to the rest of the world driving this trend, or is it part of a broader pattern in which many other countries are narrowing the gap with US universities? For this analysis, three countries are particularly relevant for comparison: the US, Germany, and China.

Figure 5 illustrates the differences in the number of universities on the top 100 list between the US and Germany, as well as the US and China. The UK, which consistently ranks second, is excluded because its position and number of universities have remained relatively stable. In terms of the coefficient of variation, the US and the UK show similar values of 0.1314 and 0.1323, respectively, indicating relatively low variability. In contrast, the corresponding variabilities for Germany and China are higher, at 0.295 and 0.577, respectively.

Figure 5. *Differences in the Number of Top Universities: US-Germany and US-China Comparisons*



Additionally, I want to emphasize the contrast between the US and China. Why, then, include Germany? The reason is that China and Germany have followed a

similar trajectory since 2011. Both countries have successfully increased the number of universities within their borders that make it to the top 100 list.

At the start of the period, both China and Germany had only three universities in the top 100, as shown in Table 1 above. Until 2020, China maintained a relatively stable count of 2–3 universities in the top 100. Germany, by contrast, steadily increased its numbers, reaching a peak of 10 universities in 2018. Since then, Germany has consistently maintained at least 8 universities in the top 100. After 2020, China also increased its count, reaching a maximum of 7 universities during the period.

In other words, while Germany has outperformed China, both countries have succeeded in narrowing the gap with the US, as shown in Figure 5. The inclusion of Germany highlights that closing the gap with the US is not unique to China. Based on the evidence presented in Figure 5, Germany has performed better than China in reducing the gap with the US.

Given the current emphasis on higher education by the Chinese government and its large, albeit aging, population, China will most likely surpass others in the near future. However, in the longer term, many other countries may emerge, primarily due to their large populations, such as India, which now holds the title of the largest population on Earth.

However, this may be of little significance given the global trends of globalization. As I explained in Papanikos (2024), the future of globalization looks promising, and this includes university collaborations across countries and continents. In a few decades, it may be very difficult to identify something as being specifically Chinese, European, or American, despite political voices that attempt to uphold national distinctions, as explained in Papanikos (2025b).

Conclusions

Global university rankings are an important indicator of how countries perform in the international higher education sphere. Although they serve primarily as benchmarks to help individual universities improve, these rankings have also become a source of competition and rivalry between countries, particularly between the U.S. and China.

In this paper, I examined the relative rankings of countries based on their performance in the global university rankings reported by the Times Higher Education index from 2011 to 2025, with the most recent ranking covering the year 2025.

Using an economics methodology, I measured the convergence among countries whose universities appear in the top 100 list and analyzed their concentration trajectories over this period.

The findings reveal that while countries are converging in the number of their universities featured in the top 100 list, the U.S. remains significantly ahead. It accounts for approximately 40% of the top 100 universities—a dominance far greater than that of any other country. The U.K. has maintained a relatively stable position over the years, while China has been narrowing the gap but still represents only 7% of the universities in the top 100. Interestingly, Germany has outperformed China during

this period, which is notable given the comparatively limited attention Germany receives in discussions of global higher education.

The evidence presented in this paper shows that the top 100 university landscape has become more competitive, as indicated by a reduction in the Herfindahl-Hirschman Index (HHI). While almost the same countries continue to dominate the top 100 list, the distribution of universities per country has become more balanced over time.

It was also emphasized that competition among countries over how many universities they have in the top 100 list holds little significance in an era of unprecedented globalization, which facilitates the rapid transfer of knowledge. However, there is nothing wrong with countries competing to have the best universities and striving to improve (becoming more competitive). This represents healthy competition. It turns into unhealthy competition if the superiority in knowledge gained from having as many top universities as possible is used to gain a competitive advantage in building military equipment.

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University Culture and Parental Involvement: Enhancing Resilience and Access to Education during COVID-19

By Nancy Phyllis Makhosazane Mabaso[*], Daphney Mawila-Chauke[±] & Lucia Munongi[°]

The study investigated how university culture and parental involvement promoted resilience and access to education among second and third-year students during the COVID-19 lockdown. Using a phenomenological design within a qualitative approach, data was collected from 15 (5 male and 10 female) second-year students and 15 (7 male and 8 female) third-year students from a university in Johannesburg, South Africa. Students from low socioeconomic backgrounds were purposively sampled. Data was analysed thematically, and the findings revealed that the positive university culture improved the students' resilience and access to education. Furthermore, parental involvement fostered resilience and access to education amongst students. Based on the findings, we conclude that supportive university culture and positive parental involvement were critical in promoting student resilience and access to education. Furthermore, we recommend that higher education institutions collaborate with families and communities to support the education of university students.

Keywords: *COVID-19 lockdown, higher education, university culture, online teaching and learning, parental involvement, student resilience*

Introduction

With the outset of Coronavirus (COVID-19), ways had to be invented to preserve normal human functioning amid lockdown restrictions. Measures to curb the spread of the disease became the main priority worldwide (Anderson 2020). Many demographics, sectors and institutions felt the disruptive effects of COVID-19, and Institutions of Higher Education (IHE) were not spared (Browning et al. 2021). Students from low socio-economic backgrounds felt the hardest pinch due to IHE closures and shifts to online learning (Rodriguez-Planas 2020). This shift was necessary to comply with COVID-19 safety protocols. Consequently, students found themselves navigating the new normal in environments that were not conducive to teaching and learning (Esteban et al. 2020).

According to Logel et al. (2021), studies conducted to investigate the impact of COVID-19 reveal very little about how HE students from low socio-economic backgrounds responded to this adversity. With the COVID-19 lockdown restrictions being implemented, the students were left with no option but to return to their families. As a result, they faced new challenges in navigating the new ways of teaching and learning engagements. Quach (2021) found that disadvantaged

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students were impacted by the move from institutions' residences to living with their families and the migration to an online mode of engagement. Considering these adversities, our study sought to find out how university culture and parental involvement aided the students' resilience and continued access to education.

According to Lanford and Tierney (2018), most IHEs adopted the online mode of engagement to ensure that the process of teaching and learning continued. Furthermore, online learning replaced traditional face-to-face interaction in HE learning. Quach (2021) found that low socio-economic standing and race exacerbated challenges during the pandemic in terms of obtaining reliable devices, internet access and working spaces. University culture has been placed in the spotlight as a factor which previously determined whether HE students thrive and manage to continue accessing education (Lanford & Tierney 2018). Shen and Tian (2012) described institutional culture as the uniqueness of an institution in its academic innovations to provide a warm and conducive environment for teaching and learning to take place. In addition, Malla (2022) cited that most South African universities implemented Blackboard as an online learning system. However, this move introduced new challenges. For example, load shedding and connectivity issues led students to move from one house to the next within their communities in search of better connectivity (Mishra et al. 2021).

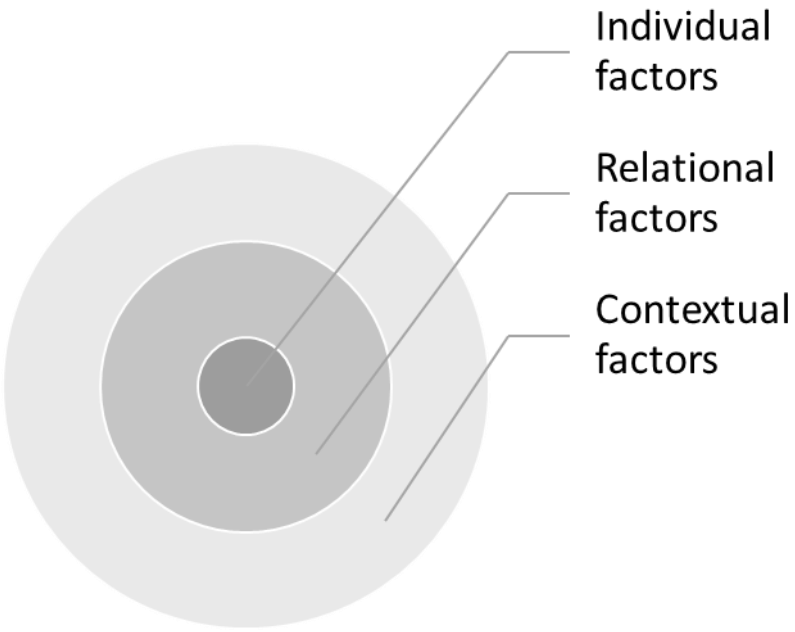
Considering that students had to learn online from home, Gumede and Badriparsad (2021) indicated that students drew support from their families as well as communities to ensure maximum educational participation. In such cases, families and communities became the enablers of resilience. Ntekane (2018) asserted that parental involvement in education is linked to enhanced student resilience and academic achievement. Resilience is defined by Kaye-Kauderer et al. (2021) as the ability to bounce back from adversity. Studies view resilience as a combination of individual traits and contextual factors (van Breda 2018, Goodman et al. 2017). With limited studies done on how university culture and parental involvement enable HE students' resilience and access to education, this prompted the authors to conduct this study as an attempt to contribute to closing the knowledge gap. Therefore, the research question addressed was: 'How did the university culture and parental involvement enhance students' resilience and access to education during the COVID-19 lockdown?'

In full awareness that some experiences negatively affected the resilience of HE students during the COVID-19 lockdown, this study only focused on positive experiences. To understand the resilience of HE students from a systemic approach, we engage with Ungar's Social Ecology of Resilience Theory (SERT). We thereafter discuss the methodology used in data collection and the themes that emerged from the data.

Theoretical Framework

The SERT states that individuals' resilience is dependent on their context (Ungar 2013). Its roots can be traced to Bronfenbrenner's ecological systems theory. Holtge et al. (2021, p. 19) defined social-ecological resilience as 'the ability of individuals, families and communities to navigate and seek out meaningful social and ecological resources that provide protective factors in times of stress.' Van Breda (2018) stipulated that resilience is multilevel and integrated. A study by Ebersöhn (2014) added that resilience relies on personal strength and contextual resources, further influenced by the social and cultural values of a community or country. Ungar (2011, p. 1) stressed that 'resilience occurs even when risk factors are plentiful.' Thus, individuals' social ecologies can influence positive adaptation to adversities. For individuals faced with adversities to resile, the interrelationships between the individual features and their context must bring about adaptation.

Figure 1. *Resilience Enablers According to Ungar (2011)*



Van Breda (2018) identified that resilience-enablers are mostly in the personal and relational domains and that these domains are inclusive of agency and affective support. As this study sought to explore how university culture and parental involvement promoted resilience and continued access to education among students during the COVID-19 lockdown, this theory was found to be a good fit. The theory enabled us to view students holistically and to explore how the systems around them enabled their resilience.

According to Kumper (1999), motivational factors, cognitive competencies, emotional stability, behavioural and social skills as well as physical wellbeing are five individual resources that support resilience. These resources are an integral part of building resilience and are influenced by a supportive social ecology (Hall & Theron

2016). Social ecology consists of immediate family, extended family, community members, professionals, strangers (van Breda, 2018) and culture (van Rensburg et al. 2017). Regarding students in this study, their university and families played a critical role in enhancing their resilience during the lockdown. The SERT is applicable in this study because it is based on relationships which interlink at micro and macro levels (Aldwin & Igarashi 2012). These levels begin hierarchically from students to tertiary institutions. Students are part of a social system and all the systems play an active role in influencing resilience. However, our study focused on parental involvement and university culture which are embedded in the relational and contextual factors respectively.

Parental Involvement and Resilience

Van Breda (2018) affirmed that parental involvement is regarded as a resource for resilience. Parents are primary resources for their children who provide the initial context to enable resilience. The immediate surroundings where an individual develops (microsystem) define a setting where an individual has direct, face-to-face relationships with significant people such as parents (Leonard 2011). Thus, Ungar (2011) stated that the individual's interactions with parents are one of the most valuable resilience resources. Harðardóttir et al. (2015) found that the motivation and understanding of parents of learners with learning challenges had a resounding impact on their ability to adjust positively. Ungar (2013) found that resilience-enabling resources in the family were healthy family routines, supportive parents and support from extended family. In agreement, Masten (2015) affirmed that resilience is related to close relationships with others such as parents. It is imperative to note that for Black Africans, attachments are not mainly to biological parents, but rather to the extended family (Theron & Theron 2014) and caregivers, which could be grandparents, neighbours and elders in the community. With the impact of COVID-19, parents and communities had a major role in promoting the resilience of their children. Luthar et al. (2021) found that the resilience of individuals during COVID-19 was influenced by their parents' role in being available and supportive. Thus, access to parental support and involvement was a critical aspect for students to mitigate the negative impact of COVID-19 on their overall functioning.

University Culture and Resilience

Appleby et al. (2022) stated that the COVID-19 pandemic caused major disturbance to university students and had an influential impact on their lives. The COVID-19 pandemic had a profound impact, not only on students' health but also on how they learn, work and live (OECD 2020). In the face of adversities such as COVID-19, Bartusevičienė et al. (2021) stressed that universities and other higher institutions have a critical role in society. In response to COVID-19 challenges, new university cultures evolved and were flexible by adopting remote learning to

ensure that students' access to education continued. Despite the challenges students faced, they were able to use the availed university resources to enable their resilience.

University culture is regarded as one of the factors that enabled the resilience of students during COVID-19. Universities responded to COVID-19 by setting up crisis task teams to mitigate adversities during the pandemic (Malla 2020). Raghunathan et al. (2022) asserted that the university's resilience is determined by its ability to continue to function as effectively as before the change and to adjust when the adversities are sudden. Shaya et al. (2022) indicated that several institutions displayed their preparedness to mitigate the impact of COVID-19. Ojo et al. (2021) found that preparation for COVID-19 was notable when institutions upgraded their software, Information Technology (IT) infrastructure and development of staff. Furthermore, Shaya et al. (2022) stipulated that students were also supported by being offered remote lectures and assessments. In this study, we argue that the university's culture in response to COVID-19 enabled the resilience of students and facilitated continued access to education.

Access to Education during COVID-19

With the onset of COVID-19, access to education was compromised. The Constitution of South Africa (Republic of South Africa 1996) stipulates that the right to tertiary education is progressive and dependent on the state's ability to provide it under reasonable conditions. This means that HE students cannot claim their right to education immediately if there are other pressing issues that the state needs to attend to (McConnachie et al. 2017). During COVID-19, the state could not meet the students' needs for them to continue accessing education as it was focused on curbing the spread of COVID-19. Thus, universities and families were left with the added burden of making sure that the students had continued access to education despite the challenges they were facing. Such responsibilities included the provision of resources such as laptops, data bundles, conducive learning environments and educational support. Thus, this study explored how university culture and parental involvement enabled the students to continue accessing education, given that the state could not guarantee this under the circumstances.

Methodology

A qualitative research approach was used because we sought to investigate the participants' experiences during the COVID-19 lockdown. We used an interpretive research paradigm as a framework to demarcate our thinking (Sefotho 2018). Through this paradigm, we gained an in-depth insight into the lived experiences of the students regarding how their institution's culture and parental involvement contributed to their resilience and enabled them to continue accessing education. The study explored the beliefs and interpretations of these students without imposing the researchers' views (Mayan 2016). Throughout the study, both

subjective and objective knowledge of the participants about their social contexts was empathetically valued in agreement with the description of the interpretivist paradigm (Patton 2015).

A phenomenological design was chosen as the lens to guide the study, as it places particular interest on the various aspects of life that mattered to the participants (Larkin et al. 2015).

Sampling

During the sample selection, the emphasis was on quality rather than quantity, where the objective was to become "saturated" with rich, in-depth data on the topic (Vaismoradi et al. 2016). Purposive sampling facilitated an in-depth investigation of 30 students from low socio-economic standing, who were 12 males and 18 females in their second and third year of study at a university in Gauteng Province. The number of participants was guided by the purpose of the study and what would be useful, credible and possible considering the time and available resources (Vaismoradi et al. 2016).

Data Collection

The researchers collected data using in-depth, semi-structured individual interviews. This data collection tool provides the researcher with rich information pertaining to participants' lived experiences and worldviews (Henning et al. 2004). According to Creswell (2014), good quality phenomenological enquiries depend almost exclusively on lengthy and in-depth interviews. Furthermore, in-depth interviews are effective for collecting data on individuals' personal histories and experiences, particularly when sensitive topics are investigated (DeJonckheere & Vaughn 2019). Thus, we used in-depth interviews in this study, using open-ended questions to obtain rich data from the participants (McMillan & Schumacher 2010). The interviews were conducted in English, which the participants were all fluent in, using the Microsoft Teams platform. The participants were made aware that the information would be audio-recorded, notes taken and that their consent would be required to maintain trustworthiness of the process. Each interview sessions lasted for more than an hour, was conversational, and we made allowance for follow-up interactions in the event of clarity being required during the transcription phase (Busetto et al. 2020). Once the interviews were concluded, data was transcribed, and all three authors checked the transcripts against the audio-recordings for accuracy.

Data Analysis

Thematic data analysis was used following Yin's (2011) three-phase format, which includes compiling, disassembling and reassembling data. During the data

compilation phase, the researchers immersed themselves in the data by reading and rereading what was obtained from the transcribed notes pertaining to the students' experiences. While disassembling the data, the researchers organised it into emergent categories and tabulated them. Finally, data was reassembled by colour-coding it into patterns as per emergent themes (Saldaña 2021). This means that the patterns, categories and themes "emerged out of the raw data when it was organised and colour-coded, instead of being put in place prior to data collection and analysis" (Mayan 2016, p. 87). Finally, the researchers wrote a narrative account of the findings and supported the arguments for each theme with verbatim excerpts from the transcripts.

Ethics

Ethical clearance to conduct the study was obtained from the University of Johannesburg Ethics Committee (Ethics number: Sem 2-2021-073). In addition, the students consented to participate after the purpose of the study was explained and an opportunity was given to them to ask questions. Furthermore, students gave additional consent for their interviews to be audio-recorded. Pseudonyms were used throughout the study to avoid linking their responses to their true identities. The participants were informed that they could withdraw from participating at any time if they felt uncomfortable, without any action being taken against them. They were informed about the educational psychologist on standby for the duration of the study and given the South African Depression and Anxiety Group's (SADAG) toll-free number in case they needed psychological services after the study had been concluded. The participants were assured that their information and interview transcripts would be kept confidential and only used for the purpose of research without divulging their identity.

Findings

Two main themes emerged from the data, namely supportive university culture and positive parental involvement. This section discusses the two main themes and the subthemes that emerged under each theme. The verbatim excerpts from the participants are used to support the themes. Table 1 depicts a summary of the themes as well as the sub-themes that emerged from the data.

Table 1. *Summary of Themes and Sub-Themes*

THEMES	SUB-THEMES
Supportive University Culture	Supportive Lecturers and Tutors
	Provision of Resources by the University
	Support from the University Management
Positive Parental Involvement	Availing of Resources by Parents
	Emotional Support from Parents

THEME 1: Supportive University Culture

Supportive university culture was regarded as a resilience factor in this study. According to the participants, the university they attended had a supportive institutional culture which promoted their resilience and resulted in them accessing their education during the COVID-19 lockdown. Under this theme, four subthemes emerged, namely supportive lecturers and tutors, provision of resources by the university and support from university management.

Supportive Lecturers and Tutors

Lecturers and tutors were critical in enabling students' resilience and access to education during the lockdown. Most of the participants reported that their lecturers and tutors were supportive and did their best to ensure that they continued learning. This is evident from Mary (female third-year) who stated that:

> '*During lockdown, the lecturers went the extra mile to put extra additional material in terms of the content so that we better understand. Also, there were recorded lectures, which I feel like was something that they used to help a lot of students that maybe couldn't connect during the class.'*

Mcedisi (male second-year) also expressed that '*the lecturers were very effective, and I can say they did everything for the team. They made sure that they delivered instructions clearly and if a student had a problem, there was a quick response.'*

Most participants highlighted that supervisors went the extra mile to support them. This is illustrated by Sphiwe (female third-year) who said:

> '*Actually, they made themselves available and sometimes I felt that we were even invading their privacy because we would just send a message even on Sunday and we would say we don't understand this and they would try their best to clarify the concept. I felt like sometimes we were abusing them. They communicated and gave feedback.'*

Mpilo (male third-year) also agreed with this and stated: '*I don't want to lie, they were very supportive and went extra miles like doing tutorials midnight because we would want to use the night data.'*

Provision of Resources by the University

Research studies abound on resource provision as resilience enablers and the findings of our study confirm this. Most participants alluded that the university acted swiftly to ensure that students were provided with the necessary resources which enhanced their resilience and continued access to education. The resources provided include the monthly data bundles and laptops. Ivy (female second-year) expressed: '*Also, the universities gave us some form of compensation like data so that we could connect to our lessons*.' Mxolisi (male third-year) concurred and

said: '*Starting with the infrastructure that was put in place by the university, they did give us data monthly.'* Thando (female second-year) added: '*l didn't have a laptop, so… l managed to [tell]… this lecturer that I don't have a laptop, then she recommended me that there was a loan device service and l could loan a device; that's when l started getting resources.'*

Support from the University Management

The findings of our study revealed that student resilience and continued access to education were further enabled by supportive university management. The university management was commended for constant communication and giving students the right to access information. This is evident from the words of Nola (female third-year) who said: '*If you contacted the faculty, you would get assistance, and our Vice-Chancellor, all the time on the social media platforms, was updating us about the progress of the university and how we were adapting to this online system.'* Vukosi (female second-year) further supported this and said:

> '*I would say that the faculty did its best for us; they attended to our queries and also they would address queries from the questionnaire where we gave responses in which they would try to improve the online learning, asking questions like where do you think we are getting it right and wrong so that they could improve the learning experiences. In a way it actually showed that they care for us. The communication was awesome it's like they put themselves in the shoes of the students.'*

Rubi (female third-year) also pointed out that

> *'they recommended the students to go for psychological services for those who felt that they weren't coping with psychological problems that were free and available to students so that through their constant communication they showed that they care, not only about academics but also about our well-being.'*

Lucky (male second-year) further mentioned:

> '*The university management was awesome, they organised for online meetings with the students especially before the exams and we would attend a session that would give you guys tips on how to study for exams, and how to prepare for exams from a physical, emotional and psychological point of views.'*

THEME 2: Positive Parental Involvement

The second main theme that emerged from our study was positive parental involvement. Most participants expressed that positive parental involvement was noted to contribute to improved students' resilience and continued access to education during the lockdown. Parental support was evident in the two subthemes that emerged, namely availing of resources by parents and emotional support from parents, which are discussed below.

Availing of Resources by Parents

Our study showed that parents availed resources that were needed by the students to continue accessing education. This became a factor that enhanced their resilience during the lockdown. As evidenced by most of the participants, their parents went the extra mile to provide them with data bundles and laptops to use for online learning. Leko (female second-year) expressed the following: '*The positive side about my learning experience during lockdown is that my parents tried, they went the extra mile and bought a router for me.'* Echoing Leko's sentiments, Kevin (male second-year) also mentioned: '*Even though my parents are poor, my family sacrificed to provide me with a router and data bundles … so I would be able to attend classes.'* Tuli (female third-year) added: *'When l did not have a laptop last year my father was able to organise one at the beginning of the second semester; he borrowed money to buy me the laptop as it was very difficult to use a phone.'* Kay (male second-year) also had a similar experience as Tuli and said: *'My adoptive mother was supportive and she just wanted me to just pass my academic year. She got me a router and borrowed a laptop for me.'*

Emotional Support from Parents

Emotional support has been known to enhance resilience in the face of adversity (Theron 2016). Given that the lockdown resulted in a lot of emotional distress for many (Le Grange 2020), HE students were not spared. Our study revealed that the impact of COVID-19 on the emotional distress of participants was lessened by the support rendered by their parents. This also included support from other family members. Pinky (female third-year) pointed out: *'I had a baby in first year so l was worried that l would fail because the baby needed attention and my family took care of the baby and always told me to calm down and focus on my academics.'* Skeema (male third-year) also said: '*So, having parents that normally check up on you from time to time was good because you wouldn't find yourself feeling down or feeling demotivated because you knew that parents would be there.'* Siya (male second-year) supported this by saying: *'My parents were the ones who gave me hope and took control even if it was difficult, but they helped me to adapt to the new way of learning. So that's the thing that kept me going, so I don't think I would be here if my parents were not supportive.'* Lilly (female second-year) agreed by saying: *'Emotionally, my father had been there and supportive even when I was lazing around he pushed me to get schoolwork done.'*

Discussion

The focus of this study was on the positive role played by university culture and parental involvement in enhancing student resilience and continued access to education during the COVID-19 lockdown. Our findings in relation to the resilience enablers portrayed in Figure 1, generally showed that despite challenges that were encountered by the students, their universities and parents assisted to

lessen the impact by responding positively. Teaching staff have been noted as a critical part of young people's social ecologies and a source of resilience (Ungar et al. 2014).

In South Africa, Black African females are the most marginalised part of the population. This is also evident with the number of Black female students in our study, which outnumbered the males. Thus, lecturers have a critical role to play in enhancing the resilience not just of female black students but also of male students (Ungar et al. 2014). This was the case in our study where the students found that lecturers' supportive nature with online learning during lockdown was a source of resilience which also enabled them to continue accessing education. Theron (2016) argued that teachers who facilitate youth resilience are found to be empathetic to students' problems and tend to support students with the problems they face. This was clear in our study where participants praised their lecturers for doing their best to understand and support them with their learning during lockdown. This enhanced their resilience during the difficult times.

Although not all lecturers can facilitate resilience among students, our findings show that a majority of the lecturers were doing this, and they are commended for doing so. Our study further found that tutors' supportive nature enhanced students' resilience during the lockdown. These findings are in line with those of Simons et al. (2018) who found that students in their study rated the highly supportive nature of their tutors who gave them tailored and detailed feedback on their assignments. In our case, the tutors even went the extra mile, holding tutorials outside their contracted times. While Kosse et al. (2020) argued that online tutoring may not be easy due to geographical distance, our findings show that this was not a barrier; rather, the positive student-tutor relationship enhanced the students' resilience and access to education. Like what Simons et al. (2018) found, the tutors in our study were influential in assisting students to adjust to the new normal and promoted students' learning through provision of timely and appropriate feedback and support.

According to Bashorun et al. (2021), it is the responsibility of tertiary education institutions to provide quality education for their students. This can be achieved through the provision of necessary teaching and learning resources. Participants in our study confirmed that their resilience and ability to access education was enhanced by the efforts made by their university in providing them with data bundles and laptops. Although some indicated that the data bundles were not always enough, they acknowledged how the allocation reduced their stress and helped them to carry out their studies. During the lockdown, this responsibility was put to the test, as HE institutions had to ensure that students continued to enjoy quality education, despite the sudden change of ways of teaching and learning. Students were supposed to continue learning and accessing educational materials. With the changeover to online learning, this meant that some students from low socioeconomic backgrounds faced challenged, as they did not have the required resources to continue learning. This could result in stress and lack of resilience for some. Awoke et al. (2021) argued that the provision of required resources is essential to assist students in coping with stress and other mental health problems. du Plessis et al. (2022) stated that universities appealed to public and private sectors

to help disadvantaged students with data and laptops to enable them to continue learning remotely. Thus, in our study, it was evident that the participants' university played a vital role in meeting students' needs of data bundles and loaning some students laptops to use during lockdown. As confirmed by our participants, the provision of the required resources to students to continue accessing education reduced the impact of stress. Raffaelli et al. (2013) further argued that in some cases such effects can be totally eradicated. Thus, the critical role of HE institutions in enhancing student resilience and facilitating continued learning for disadvantaged students is highlighted.

When considering the role played by university management in facilitating resilience and access to education during the lockdown, our study found that this was positive. This is in line with Appolloni et al. (2021) who argued that strong leadership and effective communication with all stakeholders contribute to promoting resilience. Dohaney et al. (2020) further supported that institutional factors such as leadership and communication strategies are resilience enablers. In our study, communication from university management and good leadership at all levels enabled students to be resilient and continue toward their educational goals. Kaye-Kauderer et al. (2021) posit that trust and institutional support can assist students to cope during a pandemic. Thus, open communication, seeking feedback from students and implementing suggestions for change all work to build trust in students. This can, in turn, promote resilience as students will develop confidence in their institution. Our findings further support those of Appolloni et al. (2021) who found that effective leadership and communication were critical factors in facilitating resilience among their participants.

With the new mode of teaching and learning engagement during the COVID-19 lockdown, the participants in this study reported that the provision of resources by their parents ensured continued access to education and strengthened their resilience. In addition to data bundles and internet routers, the resources required included reliable mobile phones, tablets and computers. Logically, for parents to provide the necessary resources, they needed to be in a good financial standing. Our study findings are also in line with a study that specifically investigated the resilience of Black South African university students and linked improved resilience to how parents urgently sourced funds to provide learning resources (Dass-Brailsford 2005). Similarly, our participants reported that improved resilience and continued access to education meant that the psychological impact of the COVID-19 lockdown was minimal.

Masten (2015, p. 152) also postulates that students whose parents provide the necessary educational resources seldom report any impact on their psychological well-being in the duration of their studies. In support of this claim, adults who are successful in life despite having faced adversities during their studies, often describe their families as "extraordinarily supportive" (Ofiesh & Mather 2013, p. 339). This was the case in our study when it became clear that our participants described their parents as extremely supportive. This support included parents who continued to encourage academic progress through the provision of educational resources. Studies conducted on the resilience of youth from sub-Saharan Africa confirm that it is the role of parents to assist their children to mitigate the impact of

unavoidable adversity (Camfield 2012). The same finding emerged when the resilience of South African learners was researched (van Breda 2018). Echoing the documented literature, the availing of resources by parents during the COVID-19 lockdown emerged as one of the factors that enhanced the students' resilience in this study.

In addition to the provision of educational resources, parents also played a role in enhancing the students' resilience, through providing emotional support during the lockdown. This supports claims by Romero et al. (2014) that emotionally supportive parents promote resilience by reducing the impact of adversity. Emotionally supportive parents may not be able to prevent adversity, but they can offer comfort and support children in adjusting and making meaning of the experiences of adversity. In this study, it could not be ignored how most participants mentioned their female parental figures as those who were mostly available to provide emotional support. This finding supports Zulu (2019), who postulates that women parent-figures are prominent in accounts of the enhanced resilience of African adolescents. In South Africa, this prominence could, potentially, be explained by contextual realities that women head 28.6% of nuclear households and 49.9% of extended family households (Ratele & Mzikazi 2018). Often, fathers are absent from these households because they are migrant workers, deceased, unwelcome or unknown (Padi et al. 2014). Moreover, women's prominence could also be explained by traditional Black African families' perpetuation of gender stereotypes, that tend to confine women to subservient and caregiving roles (Khosa-Nkatini et al. 2023). In line with our study findings, only two out of thirty participants mentioned male parents' involvement. Hence this study confirms the literature on the patterns within Black African communities.

Conclusion and Implication for Practice

The shift from face-to-face teaching and learning to online learning at HE institutions introduced several adversities to students across the globe. This shift aggravated the adversities students from low socioeconomic backgrounds were already facing. Since resilience is visible amid hardships (Ungar 2013), the study investigated how university culture and parental involvement enhanced students' resilience and access to education during the COVID-19 lockdown.

Reaffirming prior studies' findings on resilience, our study found that several factors enhanced students' resilience when faced with adversities during lockdown. Specifically in our study, these factors included a supportive university culture and positive parental involvement. Within the university culture, supportive lecturing staff and tutors, provision of resources by the university and supportive university management enabled students to be resilient and offered them opportunities to access education despite online learning challenges. Positive parental involvement was also evident in enhancing resilience and access to education through availing of resources and emotional support to students. The study was limited to only one university and 30 students, which limited generalisation of findings. However, the aim was not to generalise, but to gain a deeper understanding of the role played by

the university and parents in enhancing resilience and continued access to education during lockdown.

This study provided insights into the critical role the university stakeholders and parents played in fostering students' resilience and ensuring that students' education was not compromised. Despite their low socioeconomic backgrounds, parents were proactive in fulfilling their parental role by providing their children with emotional support and educational resources. Thus, they enabled the resilience of their children.

Although the university and parents played their role in assisting students to buffer the adversities students faced, no collaboration between the university and parents was reported in this study. Therefore, the authors recommend the adoption of HE institution-family-community collaborations going forward, and innovative ways should be considered to initiate this collaboration. Future research should therefore focus on innovative ways to promote the proposed collaboration.

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What Constitutes a "Good" Prevision? The Indispensable Link between Futures Studies and Social Science Methodology

*By Carolina Facioni**

Aim of this work is to analyse the link between Futures Studies and the Methodology of Social Sciences discipline. This can be a useful tool for better understanding what defines the quality of a research work aimed to possible futures. The historical debate on scientific explanation can be considered the starting point of the reflection about this very complex topic. The debate began to develop soon after the publication of the 1948 article by Hempel and Oppenheim. Indeed, it was a very heated epistemological discussion, although it never had a real conclusion. Nevertheless, a maybe still interesting topic directly involving the Futures Studies discipline arose directly from it: it was a sort of spin-off born from the main theme of the debate. That is, whether an explanation can also be considered a prevision, and vice versa. Starting from this, given the centrality of the topic of scientificity linked to this aspect, the many elements that emerged at the time can nevertheless stimulate still today a reflection on the criteria of scientificity in terms of research on possible futures.

Keywords: *scientific explanation, relationship between explanation and prevision, futures studies, methodology of social sciences*

Introduction

This work starts from a puzzling question: which criteria can make a prevision (or, in other words, a prediction, a forecast, or a foresight, etc.)[1] something of scientific kind. Indeed, a prevision is an assertion the object of which will take place (or could take place) in a future time, a time more or less distant from the person who supports it. A prevision necessarily aims to the future, and no one can

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[1]It needs to clarify some choices regarding the terms used in this paper. The author uses different concept-words related to the "work on futures": i.e. "prevision", "prediction", "forecast", "foresight", "prophecy", and "anticipation". It is necessary to specify that in the present times these terms are not (or not completely) synonyms. This is because there was an evolution of the concept of prevision in times. The terms "forecast", "foresight" and "anticipation" are indicating very different and specific approaches to methods (and, consequently, to the research work) related to modern Futures Studies (Poli 2019). Other terms are not currently in use in Futures Studies. For example, the possible presence of the term "prediction" will be due solely to the need for literal citation of some authors' works, although the term "prediction" is not currently in use in Futures Studies. In this paper, the author mostly uses the term "prevision" because it is a generic but effective term, which covers many nuances of a very complex concept, without going into the specific merits of the techniques currently used in the Futures Studies discipline. Lastly, the concept-word "prophecy" is present only because R.K.Merton used it – and Merton's theorization is very important in this work's context.

provide any evidence about something that has not yet occurred. A very clear difficulty for scientists, for whom both the topic of prevision and the distinction between what is scientific and what is not are fundamental, from the very beginning of the methodological debate (Campelli 1994). The difficulty in establishing the scientific nature of a prevision arises first from the impossibility of conducting experiments that prove hypotheses – except, of course, mental experiments[2]. An acceptable objection to this thesis is that, in the presence of a scientific law that explains a certain phenomenon, what that law explained for the past is still valid today - and it is reasonable to assume that the explanation can be valid forever. Thus, in this case, an explanation can be, at the same time, a prevision. This assertion is a core theoretical issue in the context of the debate on scientific explanation we will discuss shortly.

Starting from this premise, we could argue that, at least as far as traditional "hard" sciences are concerned, the overlap between explanation and prevision can probably work. However, if we focus on evolutions of hard sciences such as quantum mechanics, the determinism of the traditional model of explanation (and, therefore, of prevision) is no longer – or, at least, hardly - applicable. Furthermore, the prevision in social sciences deserves a separate discussion (Fasanella 1993, Campelli 2004). At most, social sciences can rely on (more or less) well-founded theories, on (more or less) solid models. In social sciences, there are no cognitive tools comparable to laws. Focusing on Futures Studies, and in particular on one of Futures Studies' core topic, the human and social prevision (Barbieri Masini 1986), the problem of the scientific nature of a forward-looking statement is evident (Barbieri Masini 1993).

The type of science to which the explanation/prediction model applies could also be a false problem, taking up David Hume's reflection, in particular his work on human understanding (Hume 1748), that also inspired the work of Bruno de Finetti (de Finetti 1931, 2006). According to Hume, starting from anyone's personal experience, the sun will rise tomorrow. Nevertheless, this statement does not express a certain fact. Indeed, the opposite assertion "tomorrow the sun will not rise" has, in terms of epistemic status, the same weight as that which we intuitively assume as correct ("tomorrow the sun will rise"). Therefore, only empirical experience, the proof of facts, will be able to confirm, or disconfirm, one of the two. In the specific context of prevision, of the reflection on possible futures, Hume's theorisation is evidently problematic, regardless of the type of science and/or discipline to which the scientific community refers. How to get out of this impasse, giving previsions a scientific value?

The Debate on Scientific Explanation, and the Topic of Prevision

A first attempt at systematizing scientific explanation probably precedes Aristotle, but it is to him, in the IV century B.C. that we owe the very first works on the subject. In particular, Aristotle deals with the topic in the First and Second

[2]Mental experiments are at the basis of the modern concept of science: best part of Galileo Galilei's experiments were purely mental (Rossi 1973).

Analytics of the so-called Ὄργανον (Organon)[3]. There we find a first analysis of the structure of the explanation, in a rigorously deductive key "a reasoning in which, given certain things, some other necessarily follows, for the very reason that they are". The concept of scientific explanation, its evolution, should not be confused with the historical evolution of science - or, better, of sciences - and its methods. The explanation is the specific object of a philosophical reflection: it is within the philosophy of science, and attempts to answer the question "What does a correct scientific explanation consist of?" given the possibility (in the ontological sense) of such an explanation. Some authors reflected about a scientific explanation's correct structure. It is undoubtedly interesting to note how a real debate on explanation begins to assert itself only when the individual scientific disciplines acquire their own specificity. Thus, from the "Aristotle version" (which belongs to the period in which all sciences were subsumed by philosophy), centuries passed before the scientific context produced a new model of explanation. It was only in the XIX century that J.S.Mill, a positivist philosopher, created a new model of scientific explanation. In his work "A System of Logic" of 1848, Mill did not take into account Hume's position regarding inductivism. As also Francis Bacon did in his Novum Organum (Bacon 1620), Mill identified some practical rules of induction, in analogy with the syllogism in deductive logic, with the aim of eliminating the problem that the induction by simple enumeration (but also some aspects of Francis Bacon's theorization) had left unresolved: *e.g.*, the impossibility of reaching a certain conclusion.

However, the problematic nature of the link between prevision and explanation only emerged in the context of the debate on scientific explanation, starting from the 1940s. The debate involved a large part of the community of philosophers of science: it started from the publication of a paper (Hempel & Oppenheim 1948)[4] which described the scientific explanation structure. In particular, the paper described the structure of the Nomological-Deductive model[5]: it was the so-called "received view" (this definition seems to be attributable to the philosopher Arthur Pap) of the scientific explanation[6]. During his life, Hempel dedicated many other works to the topic. In effect, Hempel created a sort of "theory of explanation" in the following years. He subjected it to a constant verification and revision, welcoming with open-mindedness and critical sense all the notes and objections

[3]In Ancient Greek, the word organon means "tool". Alexander of Aphrodisias, the Aristotle's commentator, gave this name to the collection of the six works Aristotle wrote on logic.

[4]Although some themes were already present in a previous article by Hempel on scientific laws (Hempel 1942), the real debate only began following the 1948 paper.

[5]This is the N-D explanation model:

C1, C2, … Ck explanans

L1, L2, … Lr ___

E explanandum

It means that the event/phenomenon E arises from certain particular circumstances, specified in C1, C2…Ck, in accordance with the laws L1, L2 … Lr. Therefore, given the particular circumstances and laws in question, (C and L together form the *explanans* part), the phenomenon E (*explanandum*) has its scientific explanation – and a sort of prevision: we can aspect, given C circumstances, in accordance with L laws, that an event E may occur.

[6]For further clarification, there were discussions relating to the attribution of the model, but this aspect is not interesting for the topic here discussed. For a focus on the topic, see Fasanella (1993).

addressed to it by the scientific community[7]. In 1962, he published the essay "Deductive-Nomological versus Statistical Explanation" (Hempel 1962), in which he returned to the critical aspects the 1948 article had left open. In the subsequent "Aspects of Scientific Explanation" (Hempel 1965), the model was completed, due to a formulation of the statistical explanation based on the Inductive-Statistical model[8].

Hempel's last work on scientific explaination, "Nachwort 1976: Neuere Ideen zu den Statistischen Erklarung" (Hempel 1977) was added as a Postscript to the 1977 edition of his 1965 work (and so it was for the subsequent editions). It represented the highest point of the debate, personally involving its leading exponents, in particular R.C. Jeffrey, W.C. Salmon and W. Stegmuller. In effect, the debate on the scientific explanation did not have a real conclusion: the discussion continued intermittently until the early 1980s, and many questions remained open (Galavotti 1984). However, entering the specific topic of explanation models is not the purpose of this work, nor is the debate on scientific explanation itself. In this regard, there are the fundamental works of the authors involved. Furthermore, an important work of Salmon (Salmon 1989) gives an undoubtedly exhaustive description of the overall debate, so as of the various authors' contributions. It is indeed a very important reference - not only on a philosophical/ epistemological, but also on a historical level.

What interests us here, because it touches on the topic of the scientific nature of previsions, is instead a secondary debate that developed in the context of the larger debate on explanation: we could call it a spin-off of the main debate. In effect, some authors focused on the symmetry between explanation and prevision (they called "prediction"), as theorized by Hempel. During the years, Hempel revised some of his positions over time. Among these, he revised also his theorization of the relationship between explanation and prevision. In Hempel's early works, there was a perfect identification, a sort of structural identity between explanation and prevision. Some of Hempel's critics considered this symmetry one of the weak points of his theory. In particular, Hempel revised some of his assumptions based on the criticisms of Scheffler (1956) and Scriven (1959), and reconsidered the symmetry as two distinct sub-theses:

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[7]In this regard, Hempel gave the scientific community a rare example of both intellectual vitality and correctness.

[8]Here is the structure of the I-S model:

p (G,F) = r
Fi explanans
===== [r]
Gi explanandum

The double line between explanans and explanandum indicates the non-deductive implication between premises and conclusion; the Gi explanandum is a non-modal sentence (it does not contain expressions such as "probably", "almost certainly", etc.). The value r in square brackets expresses the value of the inductive support, given the probability r that F occurs in G. Classic example, G is recovery, F is an illness, i is Mr. Rossi and r is the probability that he recovers. In effect, there was also a third intermediate model between N-D and S-I: the Deductive-Statistical one. Anyway, it did not represent the focus of the debate.

a) every adequate explanation is potentially a prediction;
b) every adequate prediction is potentially an explanation.

For better understanding, it is here necessary to remember one of the basic elements of Hempel's theorization: the requirement of adequacy (= the premises must be true). This requirement has the function of reinforcing the assertions of the structure. However, already in the analysis of sub-thesis a) Hempel noted that the adequacy, although indispensable, was insufficient. In fact, if an explanation indirectly also answered the corresponding epistemic question, this was not valid for prediction. Consequently, there could be laws predicting events that punctually occurred, despite not being able to explain them.

Regarding thesis a), Scriven gave three examples to prove its non-sustainability:

> First example: considering a form of paresis caused by syphilis, and considering the low percentage incidence of individuals who contract syphilis and become ill with paresis, the correct explanation and prediction will be these:
>
> 1) if a person is affected by paresis, it is because he has contracted syphilis;
> 2) if a person has contracted syphilis, he will probably not be affected by paresis.
>
> Second example (inspired by evolutionary biology):
>
> 1) an evolved form can be explained on the basis of the laws of evolution;
> 2) on the same basis, no predictions can be made about how it will evolve.
>
> Third example:
>
> 1) someone commits uxoricide due to jealousy;
> 2) the event could have been foreseen only after it had occurred.

Despite the strength of Scriven's arguments, Hempel maintained the point and considered the first sub-thesis valid. He argued that, in many cases, the fact of not knowing critical explanatory factors could depend on contingent aspects, perhaps due to strictly technical deficiencies, however transitory in the short and long term. He welcomed with interest the methodological aspects related to Scriven's arguments – and considered them when he subsequently reformulated the requirement of maximal specificity. Regarding the b) thesis, Hempel agreed with the criticisms of Sheffler and Scriven - who cited examples based on which it was evident that arguments used for a prediction were not suitable for supporting an explanation. Anyway, the question remained open.

Just as the question of the scientific nature of a prevision remains, if one wishes to harness it in a logical structure that justifies its contents and assumptions. The fascinating story of this wonderful intellectual debate can only teach us that

tackling prevision with an approach of this type, albeit very profound and intellectually rich, risks making us lose sight of our objective[9].

Prevision as an Attribution of Subjective Probability: The Contribution of Bruno de Finetti to Futures Studies

At this point, it is time to introduce Futures Studies into our discussion. Futures Studies are a relatively recent discipline. They were born at the end of World War II, during the Cold War. They were born as a response to the fear of a possible Third World War (Bell 2003, 2004, Facioni 2022). The awareness of the possible extinction of the human race due to the atomic bomb was well present in the mind - and conscience - of the scientific community. The Russell-Einstein manifesto, published on 9 July 1955, is probably the most touching and important document this reflection produced. At the dawn of the discipline, new foresighting techniques were developed in the United States (Dalkey 1969), while the philosophical reflection was developed in the European context (De Jouvenel 1962, Barbieri Masini 1993). However, the natural transdisciplinary vocation of Futures Studies - and the tendency to share experiences by creating an international network – helped overcome this initial "division of tasks" over the years. The credit for the creation of a solid international network of "futurists"[10] goes in particular to two Italian protagonists of the discipline. In particular, to the manager Aurelio Peccei, who was co-founder of the Club of Rome (Facioni & Paura 2022), and, above all, to the sociologist Eleonora Barbieri Masini, soul of the World Futures Studies Federation and theoretician of the discipline (Facioni 2011).

However, Peccei and Barbieri Masini were not the only Italians who gave an international dimension to Futures Studies. A fundamental contribution - and perhaps not yet fully understood in its possible theoretical implications - is that of the mathematician - a very reductive definition, given the vastness of his research interests - Bruno de Finetti. In particular, in this context it is necessary to underline the concept of subjective probability de Finetti developed since the 1930s (de Finetti 1931, 1937). Bruno de Finetti's theorization of subjective probability is very important for Futures Studies, as it touches on the topic of *consensus*, which is the epistemic foundation, the theoretical pivot underlying almost all methods and techniques developed in the Futures Studies context.

[9]The Author preferred not to delve into another aspect discussed in the same years alongside the debate on the explanation. That is, the teleological, or functional, explanation. This approach explains an event through its purpose, therefore placing the explanation in a future event with respect to the time in which the Explanandum is located. Among the theorists who dealt with it, R.B. Braithwaite, who (Braithwaite 1946) drew attention to the character of plasticity and variance of actions (thus explaining the changes in strategies), and previously Rosenblueth et al. (1943) had expounded a cybernetic theory of behaviour. Last but not least, Nagel (1961). The paradox is that this part of the debate, which more than many others focuses on the future, arises in the context of the discussion on *historical* explanation.

[10]In recent years, the international community has agreed to call "futurists" those (scholars, researchers, theorists, etc.) who deal with Futures Studies. There is no connection with the well-known Italian artistic movement born in the first decades of the twentieth century.

A paradoxical aspect is that de Finetti himself considered the focus of his contribution to Futures Studies not so much his theorization as a mathematician (de Finetti 1968), but rather his commitment (including his political commitment) in the energy resources field. In particular, in his tireless and passionate fight against the senseless waste of natural resources (de Finetti 1975, 1976). However, an analysis of his contribution as a mathematician also allows us a critical rereading explanation/ prediction models based on statistical induction[11]. Moreover, it helps to understand how it has no sense to attribute any *a priori* probability to any event/phenomenon.

We must consider the cultural climate in which de Finetti developed his theoretical hypothesis. As Marco Mondadori underlines in his preface to "La logica dell'incerto" (Mondadori in de Finetti 1989, vii-xxiv), in the years de Finetti's theorization of probabilism took the form of a proper *research program,* as meant by Lakatos (1978); as well as it became a new paradigm, taking up Kuhn's (1962) theorization. Incidentally, if we consider what de Finetti wrote in "L'invenzione della verità" – an essay he wrote in 1934, but only published posthumously in 2006 - we could say that Kuhn himself is among the authors anticipated by de Finetti. The years in which de Finetti developed the ideas that would lead him to Probabilism are the same in which Heisenberg published the work where he formulated his uncertainty principle. Gödel published his theorem on incompleteness in 1931. Slightly earlier (1927) Bridgman published his work The Logic of the Modern Physics, a text that marks the birth of scientific operationism, which also found its convinced advocate in de Finetti.

In de Finetti's conception, reasoning in terms of probability is, in fact, equivalent to make prevision. Consequently, the topic of prevision acquires a central role in his theorization, in his paradigm of the probabilistic approach. It is maybe more correct to call de Finetti's theorization a paradigm, rather than a (usually one-way) research program. In fact, a paradigm indicates a basic epistemic conception, which can however guide a wide range of choices, and it is consequently more adequate to the pluralist and subjectivist approach of de Finetti. He always meant probability as subjective. Probability is not a metaphysical entity, an *a priori* essence that pertains to the object of prevision itself. Probability is a hypothesis that individuals make, based on their own personal experience and judgment parameters. Moreover, it can be correct to speak in term of "probabilities", using the plural form, as de Finetti himself did in his treatise (de Finetti 1970). Probabilities are therefore the opinions that individuals form on the possibility of the occurrence (or otherwise) of an event (or of a phenomenon). The more well founded the more flexible, being the formulation of probabilities strictly linked to the state of knowledge acquired on the topic.

Exchangeability (another important concept in de Finetti) is the situation in which the measurement of the actual probability attributed by the subject is given. Here it is necessary to recall some terminological elements of which he himself underlined the importance from the beginning: the distinction between the concepts "event", "fact", and "phenomenon". If by "fact" de Finetti simply meant

[11]Due to a precise choice of the author, in this part no mathematical formulas will be presented, in order to give greater prominence to the more typically theoretical-philosophical aspects of de Finetti's contribution

to indicate something that happens without being the subject of a conjecture (de Jouvenel 1964), bet, or probability calculation, the term "event", in his conception, has meaning only if used in a specific sense, never in a generic sense. In fact, by "event" he meant an assertion such that, by stipulating a bet on it, it then emerges in an indisputable way whether the event is true or false (has occurred or has not occurred) - and therefore whether the bet is won or lost. Events are aspects of a "phenomenon": the two concepts, in de Finetti's theorization, are therefore in a hierarchical relationship. The use of the concept-term phenomenon, in the specific subjectivist meaning, therefore aims to eliminate the ambiguities typical of the collective designations, and underlines the problems linked to the topic of classification in research, so strongly felt in the sociological context (Marradi 1980, 2007, Agodi 2001, Bezzi et al. 2010). There is, according to de Finetti, ambiguity in speaking of "evidence of the same event" as it is implied that such evidence must automatically be considered equally probable, or even independent (in a stochastic sense) from each other.

However, the concept that most of all is important in this work's context is that of *exchangeability*. It is a fundamental notion, which has immediate repercussions on the very concept of forecasting - as well as interesting implications on the level of empirical research – also, perhaps above all, on Futures Studies research on the field. By exchangeability de Finetti meant the equilibrium point on the basis of which an individual is no longer willing to modify the probability he/she attributes to the occurrence (or otherwise) of an event (or of a phenomenon, according to de Finetti's theorization), regardless of the alternatives he/she are facing. In this way, even if the probability is subjective, the formulated data acquires its own scientific solidity, based on consensus. It is not a probability of metaphysical kind. It is instead the result of a collective negotiation, at the end of which the single individuals involved reach their exchangeability, i.e., a probability on which all those who made their personal "bet" agree.

The implication with the practice of field research is evident. Above all, it is clear the implication of de Finetti's theorization in the Futures Studies practice of research[12]. In fact, most of the methods and techniques used in the discipline (Glenn & Gordon 2009) are based on reaching consensus among the group called to respond on a given topic. In the Delphi method of interview this aspect is transparent. The interviewees, who do not know each other, are asked to propose their subjective idea of probability in relation to the research topics of interest. Each interviewee has the opportunity to know the answer (not the identity) of the others - and everyone is invited to revise his/her own evaluation based on the response of all the others. Thus, everyone change his/her initial position during various (almost three) rounds of interviews, and gradually the percentages change, until the community reach a common value, which is understood as the shared value of the prevision. The US Rand Corporation experts (Dalkey & Elmer 1963, Dalkey 1969) developed the Delphi method in the context of Cold War. The method was aimed at avoiding the typical criticalities of group interviews – e.g., the leader effect (Bezzi

[12]A comprehensive overview of the methods and techniques used in Futures Studies is present on the website of the Millenium Project, an international think tank organized in nodes present almost all over the world (Glenn & Gordon 2009). On: https://www.millennium-project.org/ publications-2/.

2013). However, it is clear, that the result of a Delphi is nothing other than the achievement of the state of exchangeability, i.e. the prevision expressed as a percentage value agreed upon by the community of experts interviewed, exactly as theorized by de Finetti. Delphi has never stopped evolving from a technical point of view (Di Zio & Pacinelli 2011, 2019), still positioning itself as the main method among those dedicated to foresighting[13]. Thus, De Finetti's lesson is still not something futurists consider a chapter from the past. It is a contribution still valid and essential today, even in its philosophical implications.

R.K. Merton's Contribution

As we have already argued at length, the reliability of a prevision – or, better, its scientific nature – does not pertain to any model of explanation. However, we could also consider that, thanks to de Finetti, it is possible change the perspective. We can maybe find the prevision's scientificity passing first through a sort of *pars destruens*. First, abandoning the rigid models suggested by the epistemologists of the previously in-depth debate. Then, as de Finetti suggested, abandoning the idea of a metaphysical probability, external to experience. That is, reasoning in terms of possible futures – and consequently attributing different probabilities to the occurrence of an event, creating different scenarios – or reaching a common evaluation, as possible in de Finetti's exchangeability. Thus, those who deal with futures must therefore always remember that probability does not have an absolute value, but is the result of a negotiation: there is no absolute formula, nor an a priori model.

Possible futures are the main research object in Futures Studies, which is therefore the discipline most interested in the scientific nature of previsions. In this thematic junction, however, it is necessary to clear away a possible element of confusion. Futures Studies do not only deal with human and social prevision. However, the field of human and social prevision is the one in which the difficulty of not having an immediate confirmation of one's statements is most felt. However, it is necessary to underline an aspect that may seem paradoxical: guessing a prevision does not constitute the "scientific" essence of the prediction itself. This, whether we are talking about short, long or medium range forecasts. This is due to an aspect that Robert K. Merton highlighted in a historic work of his (Merton 1948): a prevision (he used the term "prophecy") can influence the result of the forecast itself. Therefore, it is possible to have both *self-fulfilling prophecies* (events that would probably never have happened without the prophecy itself) and *suicide-prophecies* (events that probably did not happen because of the prophecy: thus, the prophecy self-disproved). In this case, it is still important to underline

[13]It is important to make a clear distinction between forecasting (the traditional way statisticians use for making previsions and scenarios: e.g., the demographic scenarios are forecasting). Foresighting use both quantitative and qualitative approaches aimed to the creation of scenarios. Focusing on methods used in Futures Studies is not the aim of this paper. However, it should be underlined that the quality of the data (both used and produced) is essential for methodological correctness - and therefore for the scientific nature of a prevision. This aspect becomes increasingly important as technological evolution grows. In this regard, it is interesting to read the position of the Italian Society of Statistics about the use of Big Data (SIS 2018).

terms such as "probably", "possible", etc. Indeed, no one can anyway be sure the result depended from the prophecy. No one can be sure of the chain of causes, and contributory causes, that lead (or not) to the occurrence of any event. Moreover, this is even truer the further in time the foreseen event is.

A prevision is formulated at a given moment, in a given context of knowledge. We can call this state of knowledge the "epistemic sphere". There may be different cases of success or failure of a prediction[14], but we focus on two:

a) the event hypothesized in the forecast occurs, but the causes of the event are different from those formulated by the forecast at the time
b) the event hypothesized in the forecast does not occur, and the failure of the prediction depends on the forecast itself

In neither case can we speak of success. In the case a) the success of the prediction is a coincidence. In case b) we are faced with the verification of Merton's theory, but we are still not able to actually know what caused the failure. However, no one is able - in the two cases considered and in all other possible cases - to establish a certain cause-effect connection. This may depend on an almost infinite variety of possible causes. Certainly, an important aspect is that the moment of a prevision's formulation is necessarily different from the moment in which the event is supposed to occur. Just as the temporal context between the moment of formulation and that of verification/disconfirmation of the prevision is different. We face different epistemic spheres, different levels of knowledge, different development of technologies, etc. Thus, no one can predict what will happen with certainty. The future cannot be predicted - possible developments can be guessed at, and this is the best that can be done, especially in the field of human and social prevision. As with the rising of the sun in Hume's theory, human beings have a thousand-year experience of it in the past, and this experience tells them that it will very likely be like this tomorrow too. Nevertheless, there is no certainty in the future. Thus, the actual success of a prevision cannot be the right criterion to determine the scientific nature of the prevision itself. So, where can we search the scientificity of Futures Studies, and in particular the scientificity of human and social prevision?

Conclusion – How a Very Ancient Word Can Help: Μέθοδος

It is necessary to shift the center of attention from the "what" to the "how", if futurists want to have an acceptable scientific criterion. In their looking for a valid criterion that defines fieldwork as scientific, futurists, inevitably, find themselves facing exactly the same kind of difficulties as their colleagues engaged in the more traditional social sciences. The goodness, reliability and scientific nature of a social prevision have to face exactly the same problems of the more traditional Social Sciences, from an epistemological point of view. There are not scientific laws of indisputable validity to rely on. The social research can influence the

[14]The use of the term "prediction" respects, as the use of "prophecy", the terms used by the cited Author.

results, and so is for previsions. There are not solid models of explanation; at most medium-range explanations, based on reasonably well founded knowledge (Campelli 2004).

In the absence of other elements, we need to look at a concept that comes from far away in time. That is: method, how a research is built step by step. The Greek work μέθοδος is composed by two elements: μετά (=through) and ὁδός (=path). Thus, the word indicates the path one crosses to get somewhere. In the scientific context, it indicates every single step in the research work: from the initial conceptualization to the reflection on the results. Having to face the same problems as the human sciences at work, the scientific credibility of Futures Studies may probably consist in the methodological strictness. Indeed, setting the discussion on the correctness of all the steps followed during the research work probably puts futures studies on the same level not only as the social sciences, but as all the sciences as a whole. At the basis of this assert, which may seem reckless, there are some usually overlooked elements. As for any other researchers, the futurists must have a solid wealth of knowledge on the topics they want to address. As for any other researchers, the futurists must conduct their surveys in a correct way at every single step. It means not being superficial in analysing data. It means that scrupulousness, rigor in carrying out procedures, must be a guiding criterion for both the (also social) scientists and the futurists. The evolution of new technologies is not simplifying, but complicating the overall picture. This is a 360-degree challenge, which affects both the level strictly linked to the development of new methods and techniques (i.e., data collection, data control), but also in the broader ethical horizon that AI is opening up (Paura 2022). Dealing with the range of existing methodological techniques of controlling the research quality, in a single paper, is an impossible-to-reach aim. However, not even the in-depth analysis of a single evaluation technique was within the objectives of this paper. This work presented itself as a purely theoretical reflection on a topic that is not very well known, but still important. For Future Studies, the only hope of scientificity is in *how* their research is made step by step. The scientific nature of a prevision lies in *how* the prevision is developed. This, with a further degree of difficulty for the futurists. In effect, social scientists are aware they can influence their research's own results – for example, changing in some way the society they are studying. Anyway, for social scientists this is an only eventual side effect of their work. For futurists, changing the society *is* the work. I am referring, in particular, to that part of Futures Studies called anticipation. Consensus on decisions taken collectively - one of the objectives of anticipatory work – can be useful to avoid (not eliminate) possible problems in the future due to incorrect decisions made in the present. The weight of this responsibility, which the philosopher Heller defines as enormous (Heller 1988, Poli 2011), cannot fail to play a role in the futurists' fieldwork. Scientificity, in Futures Studies, is characterized by an ethical weight (Poli 2019) that other sciences certainly do not know.

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