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Precarious Researchers. An Exploratory Study in the Universities of Central and South Italy

*Giuseppe Gaballo**

Abstract: From January 2000 the European Commission launched the idea of a “European space” of research in order to coordinate activities, programs and national and regional research policies. Italy seems to be an exception: recurrent cuts to higher education and increase in precariousness threaten the core of scientific research, beruf and professional ethos of the (young) knowledge-workers. The survey presented in the paper offers an overview of the situation of many precarious researchers working in the universities of south Italy. The personal aspects of their academic experience – such as the relation with colleagues and superiors, the necessity to work without an income and accomplishing non pertinent tasks, the gradual dismissal from university – are further analysed through in-depth interviews carried out with a sample of precarious researchers working in the University of Salento.

Keywords: training, experience, precariousness, social capital

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Introduction. The two stages of the research

Due to the cultural policies, Italy takes a lower position compared to other major European partners about the average level of education, especially when the number of graduates is observed (Federculture, 2015; Cipollone & Sestito, 2010; Visco, 2014). It seems unlikely that in the near future Italy will increase the number of citizens with third level education. In Italy, the amount spent on university education is much lower than other OECD countries, measured on both GDP and compared to the number of students (also taking into account the different duration of the study course) (OECD, 2014). What is also lower is public spending: it has fallen in recent years, particularly as a result of the reductions made on the Ordinary Financing Fund (FFO). In particular, between 2008 and 2012 the FFO decreased more than the national average for universities of central Italy and even more so in the South.

A significant reduction in the number of university professors has been observed in Italy; despite the difficulties of international comparisons, the number is lower than in other European countries (Banfi & Viesti, 2015). The Istat data for 2014 (Istat, 2014) show a situation of clear disadvantage: since 2008 the overall decline in the number of professors was 13%. If the number of tenured professors has fallen, the temporary positions such as research assistants have increased, especially in the North.

Focusing on research fellows and research assistants, easily set in the Italian legal framework, data from 2013 still show that the South of Italy is far behind compared to other districts. First of all, according to the data collected by the National Agency for the Assessment of University and Research (ANVUR, 2014), in 2013 research fellows accounted for 4.5% of tenured teaching staff.

The high number of these two professionals of the research is important, because they make up for the shortcomings of the teaching staff – classes, tutoring, planning, etc. – and sometimes the administrative gap due to staff shortages, legislative changes that undermine the rigid bureaucracy, individual incompetence.

For this reason, the study presented in this paper, carried out by a group of researchers at the University of Salento, is focused on research assistants and research fellows who worked in small and medium-sized Universities in central and southern Italy. In particular, the survey – carried on between June 2014 and April 2015 – is the first one about precarious researchers

from a significant number of Italian universities carried out five years after the reform law n. 240 of 2010. The aim is to analyse the professional experience of two precarious contractual figures in an academic and local context which is unfavourable to the continuation of the research. This is due to both a lack of public funds, more and more limited, and to the economic and entrepreneurial fabric that places little reliance on research and whose collaborations with universities are not very significant.

Based on the affiliation to the physical, natural and technical sciences and humanities, the answers of the sample have been considered on two main topics:

- the academic record – national and foreign experience, contractual records, academic and administrative activities not provided for in the contract;
- the relational dimension – with reference to the academic and extra-academic social capital and relationships that can be a barrier to employment.

It was not easy to obtain a contact number of the precarious researchers. Very few departments of the identified Universities answered in order to provide us with contacts and sending the link of the online questionnaire. 80% of the emails of the respondents were acquired with a search on the university portals.

The quantitative survey was complemented by semi-structured interviews conducted among the precarious researchers of the University of Salento. The aim of this qualitative study was to compare the biographical and professional stories of eight researchers of the two macro-scientific areas of interest. Furthermore, an attempt was made to select subjects not very old nor too young (32-40 years) in order to have, on one hand, researchers with a significant number of years of precariousness and, on the other, to compare the “senior” researchers with young ones; there was a balanced presence of men (5) and women (3); finally, four respondents out of eight belonged to the scientific macro-area, the others to the humanities¹.

¹ The lack of response of most Departments when asked to give the contacts of the precarious researchers in order to carry out the survey protracted the length of time for the research. For this reason, the working group of Lecce was obliged to optimise the time, choosing a university which had the features that represented the other universities involved: significant growth of the two precarious positions; difficulty in continuing to work in the university; scarce relations between academic world and productive sectors of the territory of interest.

The objective of the second step of the research was to understand how the events, the territorial and academic context, the structural, behavioral and cultural processes impacted on the academic and private lives of the respondents, as well as the construction of their subjectivity: the sense of self, creation of the share capital and professional ethos in fact constitute the major focus of the qualitative analysis. Therefore, the respondent was asked to tell his/her academic journey starting from the choice of the degree course.

The sample survey. Population and sample

The empirical research started with the analysis of the “precarious population” of nine Universities of Central and Southern Italy. In particular, the universities analysed are: University of Salento, University “Gabriele d’Annunzio” of Chieti-Pescara, University of Salerno, University of Basilicata, University of Cassino and Lazio Meridionale, University of Molise, University of Calabria, University of Catania and University of Cagliari. These universities have been selected for their small and medium dimensions – and especially for the issues concerning the relationship with the economic and entrepreneurial fabric which is not capable of hiring highly skilled staff. In detail, the universities selected have the following features (table 1):

Table 1. Main features of the universities selected - 2014-15

	Departments	Students ²	BA - MA ³
University of Catania	21	45.758	42/57
University of Salerno	15	34.999	40/45
University of Calabria	14	28.892	30/53
University of Chieti-Pescara	13	28.023	29/22
University of Cagliari	18	26.763	41/43
University of Salento	8	18.261	23/33
University of Cassino and Southern Lazio	5	8.270	13/20
University of Molise	6	7.349	21/25
University of Basilicata	6	7.194	14/20
<i>Total</i>	106	205509	253/318

² Data from the Ministry of University and Scientific Research.

³ Unified courses of study have been included among the Master’s Degrees.

The groundwork for the analysis of the population has been particularly laborious. Having identified the contractual categories of the precarious knowledge-workers, we found it particularly difficult to collect some local institutional data and especially the lists of the names.

Through formal email to the Directors of the 106 Departments of the selected universities, it was asked to provide a list of research assistants and research fellows and their respective email addresses. This first attempt to collect data did not lead to relevant results: replies to the emails have come in a small number. As this first attempt failed, we searched for the websites of the selected Universities. We tried to identify for each departmental structure the networking of names and email addresses of researcher fellows and research assistants, without having certainty of the fact that web pages were updated. In addition, very often there were no corresponding addresses to the lists of names. This resulted in an additional time loss in the attempt, sometimes useless, to get a contact corresponding to the names through different channels (direct and indirect personal contacts).

This allowed us to obtain feedbacks by 978 researchers, from research fellows to research assistants, from the official websites of the universities selected. Only 767 researchers out of the total shared online their e-mail address (table 2).

Table 2. Total number of precarious researchers/email recorded

	Research fellow/ Research assistants	Email recorded
University of Salento	162	128
University "Gabriele d'Annunzio" of Chieti-Pescara	30	30
University of Salerno	235	235
University of Basilicata	38	21
University of Cassino and Southern Lazio	18	15
University of Molise	24	24
University of Calabria	115	99
University of Catania	117	109
University of Cagliari	230	106
<i>Total</i>	978	767

Among the 767 precarious researchers 162 (21,1%) belong to Departments of humanities. The questionnaires filled in were 197 (25,7% of the starting sample). The sample (table 3) is made in a balanced way by men and women, while the ratio between research assistants and research

fellows is unbalanced.

Table 3. Academic profile and Gender

	Female (n. 92)	Male (n. 105)	Total (n. 197)
Research assistant	92,4%	88,6%	90,4%
Research fellow	7,6%	11,4%	9,6%
	100,0%	100,0%	100,0%

As regards to the age, there is a relevant presence of over 40 year-old researchers, and this reflects the rather “old” Italian academic world (Cineca, 2007; Anvur, 2014, p. 234). The mean age (table 4) is around eight years or so after obtaining a Ph.D.; specifically, the sample is concentrated in the age group ranging from 33 to 36 years (37%). The “older precarious” reached the relevant value of 29,3%.

Table 4. Age of the respondents

Mode	Median	Mean	St. Dev	Min-Max
33	35	36,0	4,6	28 - 55

In addition, a quarter of the sample lives with the family of origin, while 30,8% has at least one child, handling more complicated family dynamics in situations of precarious contracts.

About three-quarters of respondents work in Departments of physical and natural sciences and in engineering (table 5). The increased presence of the latter depends, of course, from the fact that technical and scientific disciplines are more diversified and in greater numbers than in the humanities, but also probably because these scientific fields have more resources with which it is consequently possible to banish competitions.

Table 5. Scientific macro-sector

	Scientific macro-sector	%
Soft Sciences	47	23,9
Hard Sciences	150	76,1
	197	100,0

Academic path

The first aspect considered is the relationship between the number of contracts and the variables related to time and the macro area of reference.

From a first observation (table 6a) it seems that those coming from the humanities have, on average, more economic resources than the other subgroup; however, it was also found a greater variability (standard deviation = 8,4). Moreover, this result conceals a factor: the contracts of those who work in the field of physical, natural and material sciences are likely to last longer and economic resources are more available to a larger number of researchers.

Table 6. All contracts in relation to

a) Scientific macro-sector

	Min	Max	Mean	St. Dev.
Soft Sciences (n. 47)	0	38	10,7	8,4
Hard Sciences (n. 150)	1	38	7,5	6,4

b) Years working in University

	Min	Max	Mean	St. Dev.
1-7 (n. 101)	0	29	5,9	5,4
8-17 (n. 96)	2	38	10,8	7,8

It is quite obvious to expect an increase in the number of contracts based on the years of stay in University. The cuts in University and the economic crisis, which has affected potential non-academic partners, have produced a decrease in new contracts, but this probably applies to younger researchers in particular (table 6b).

With regard to the contractual difference based on years of academic stay, it is possible to notice that there is a relevant presence of over 30 and over 40 year-olds among those who have been working in the University for a maximum of 7 years. This means that many of the researchers over 35 began their academic path quite late and this seems crucial for the average contracts with regard to the 36-40 age group that follows the age group immediately younger⁴.

⁴ There are no differences between macro-areas of interest based on years of precariousness.

University commitment

The academic experience of precarious researchers in the Italian universities is well known: in addition to research, they are involved in activities that are not only academic. For this reason, we have focused on official and unofficial workloads. For what concerns the teaching experience, we asked on the sample if they had teaching assignments. The answer was clear: most of them had teaching experiences without ownership (table 7).

Table 7. Teaching (for Ph.D., seminars, laboratory)

	%
Without contract	73,6
With contract (max 40 hours)	31,0
With contract (over 40 hours)	20,3
<i>(n. 197 = 100,0%)</i>	

There are no differences based on gender and department. However, there is a relevant difference based on age in relation to the assignment on contract (table 8).

Table 8. Total number of interviewees with teaching contracts (for undergraduate, Ph.D., seminars, laboratory) in relation to age

	28-32 (n. 45)	33-35 (n. 55)	36-40 (n. 65)	41-55 (n. 32)	Total
max 40 hours	17,8%	45,5%	29,2%	28,1%	31,0%
over 40 hours	4,4%	27,3%	20,0%	31,2%	20,3%
<i>(n. 197 = 100,0%)</i>					

An expected result can be observed in the following table (9): those who have been working in the University for a long time had a higher number of teaching assignments. Teaching on contract have quite similar figures for a maximum of 40 hours, while it is normal to expect that the most relevant teaching assignments are given to those who have more experience (8 to 17 years 29,2%).

Table 9. Teaching contracts in relation to number of years in University

	1-7	8-17	Total
Without contract	64,4%	83,3%	73,6%
With contract (max 40 hours)	26,7%	35,4%	31,0%
With contract (over 40 hours)	11,9%	29,2%	20,3%

(n. 197 = 100,0%)

The workload of commitments certainly cannot only cover the teaching. Paying attention to other activities means giving importance to the academic staff as well, whose deficiency has been reflected and consolidated over the years with the constant use of precarious researchers, who often are assigned tasks that are not envisaged in the contract and often not paid⁵. In this regard, this is what a research assistant at the University of Salento stated when interviewed during the second step of the present research⁶:

I do what a tenured professor does and to do everything that I do I still have to pass a competitive exam: this... this sounds... just... like... illogical!!! Illogical! It's crazy, frustrating! This is just absurd! It may also happen that I will never be able to pass a competitive exam... because things change all the time, you do not know what they will ask (female, humanities).

Regarding the respondent's involvement in teaching and administrative activities, differences based on gender, age and macro-disciplinary area of affiliation are not observed. The most characterizing activities include supporting students (tutoring, thesis tutoring, etc.). A relevant percentage of the sample is frequently engaged in administrative activities. More than a few respondents from University of Salento considered the administrative activities the most alienating part of the academic experience:

Inside the University nothing has been done to activate the procedures. I had to go to operate the riddles machine: these are, above all, the things that

⁵ For the research fellows those tasks are envisaged by the contract.

⁶ In order to ensure the privacy of the respondents I omitted some information about the precarious researchers interviewed with semi-structured questions. Humanities refers to Literature, Philosophy, History, Psychology and Social Sciences while the Scientific field includes Mathematics, Physics, Biology, Medical Sciences and Engineering.

make you lose the willingness to act, to work... to spin wheels etc. (male, scientific field).

I did what I had to do because that was what it was required from me. But from the scientific point of view I am less motivated, so I felt without substantial energy. The research work is a particular job: first you must be stimulated and then you must do it, you have to be into it, because only in this way you'll succeed in... For the rest, if you start to be distracted, to do other things, it becomes difficult... The more you get distracted, the more you are unable to do it, the more you cannot do it the more you get frustrated [...] What is the point of not allowing a researcher to teach but doing administrative work instead? (female, scientific field).

With regard to the teaching activities more men than women are involved in following graduands exclusively entrusted by them (table 10) (never/rarely 34,3% vs. 53,3%)⁷.

Probably this result also depends on the fact that more men than women (37,1% vs. 23,9%) have had teaching assignments on contract for a working lead equal to or less than 40 hours.

Table 10. Entrusted dissertations in relation to gender

	Female (n. 92)	Male (n. 105)	Total (n. 197)
Never/Rarely	53,3%	34,3%	43,1%
Sometimes	19,6%	20,0%	19,8%
Frequently	13,0%	27,6%	20,8%
Constantly	14,1%	18,1%	16,2%
	100,0%	100,0%	100,0%

In regards to the tasks not provided in the contract and not strictly scientific or didactic has initially determined some hesitation to answer on behalf of respondents of the University of Salento, who then addressed the issue with suffering and with the typical emphasis of an outburst:

And yes, I've done that too! I also drove the teacher and other similar activities [...]. I wanted them to know that they could rely on me also for extra-academic things. I felt exploited then, in the sense that, when... even though you bend over backwards for extra stuff because certain problems arise, and then there's no future... in that moment you feel exploited. "So I

⁷ There are no differences between men and women based on age.

was there, you used me, I have made you comfortable, but then...” (male, scientific field).

For example, following the administrative part of a project or writing a call for recruiting teachers for a training course. Secretarial work. Absolutely yes, I'm not the only one... It is a habit here! (female, scientific field).

I have been working with quite reasonable and sensible people. They were not always perfect, but I do not complain about their behaviour. But, anyway, I see other people who do not care about precarious researchers and exploit them and claim extra activities as obligations (female, humanities).

All eight respondents reported the use of precarious researchers as a widespread custom, especially for activities falling outside the research: those who did not receive such requests said that this is a topic among colleagues because the phenomenon is customary (Ph.D. Italian Association, 2015). The problem is much more serious because it depends not only on the lack of staff, but also on two other factors:

a) the discretion of the professor

Because there are tutors who, besides being tutors, claim to be, you know – that's why I say that we must respect the time of the person – private life invaders; but not of privacy in its physical sense: intrusive in requiring the presence at all costs, beyond the actual work necessity or requesting an indefinite time to be received, instead of doing something else, and so on (female, scientific field).

b) the reaction of the administration

– It happens that the administration is a bit slow and you lose time even only to urge them... It's all a compromise. I would not say “it's such and such's fault”, it's all a... *modus operandi* (female, scientific field).

It is not that America has less bureaucracy, indeed; but it works... and it works efficiently... many steps, but reasoned. [From us, author's note] There is often the unwillingness of many administrative officers not to want to... to respect the deadlines “No, now we are busy, now I have to do...”. It seems to me that they do not want to take action right away. They have a tendency to always complain (male, scientific field).

At least a third of the respondents said that they often carry out activities that are not recognized as such and more than half of the respondents (59,4%) states that this happens on a regular basis. In addition, there is a relevant difference according to the department of affiliation. There are however differences with regard to carrying out “non strictly academic” activities: a 39,1% of the sample, however, complains that this happens frequently.

A similar argument is observed about unpaid works in the University (table 11); by merging the “often” and “constantly” answers, those coming from the humanistic area regrets a greater degree of involvement in unpaid activities (51,1%) compared to the other sub-sample (22,3%).

This perhaps can be attributed to an increased availability of public and private external resources some departments such as engineering and physics mostly enjoy, but it also explains how the former are forced to also use the “free time” to work on research projects or drafting a paper.

Table 11. Not paid work in University in relation to scientific macro-sector

	Soft sciences (n. 47)	Hard sciences (n. 150)	Total (n. 197)
Never	2,1%	10,7%	8,6%
Rarely	10,6%	21,3%	18,8%
Sometimes	36,2%	46,7%	44,2%
Often	38,3%	18,0%	22,8%
Constantly	12,8%	3,3%	5,6%
	100,0%	100,0%	100,0%

This difference is reflected on the fact of working outside the academic context. Most of the respondents belonging to humanities were obliged to find a job in the lean periods: more than half had to find a job combining work with study and research (table 12).

There were no differences based on gender, age and field of interest regarding satisfaction in performing scientific activities outside the academic field.

Table 12. Work outside University in relation to:

	Scientific macro-sector		Gender		Total
	Soft Sciences (n. 47)	Hard Sciences (n. 150)	Female (n. 92)	Male (n. 105)	
No	34,0%	45,3%	48,9%	37,1%	42,6%
Mainly in alternative to AA	12,8%	32,0%	28,3%	26,7%	27,4%
Mainly together with AA	53,2%	22,7%	22,8%	36,2%	29,9%
	100,0%	100,0%	100,0%	100,0%	100,0%

AA: academic activities

It is noted, however, satisfaction, above all, from the professional and relational point of view rather than economic one. This means that the social environment and the university partners have allowed the researchers to express themselves according to their needs, but this hardly ever corresponded to a consistent remuneration.

Among the respondents of the University of Salento, it is possible to identify two critical issues concerning the precarious contract situation:

a) different activities in different contexts do not allow a continuity of study, and, as a result, a certain productivity.

Yes, and this leads me to publish little. This is a very serious problem! Because I said that the family supports me, but I try to find something for my own dignity. The projects of English in schools (PON), I have always done them [...] I also worked from 10 pm until midnight. These are very different types of activity ... I lose so much time and I take it away from writing [...]. This is a serious problem (female, humanities).

b) the territory responds, but with no medium or long-term projects

I've always been someone who did not do just one thing. The thing is that those who work in university try to always be at the University. I have been dynamic enough from this point of view, and I had several interactions also outside the University [...] In fact both parts, inside and outside the University, were pleased. But these satisfactions, which can last for a short period, were not followed by a real perspective and concrete work. And when I say work I mean with a salary. The continuation of the projects. I did many things in non-academic fields, but they are over. It seemed to be back to the drawing board, despite the congratulations, despite the personal satisfaction, the discussed and concrete ideas, but always at times. [...]

There are no long-term projects (male, scientific field).

These interview excerpts raise two important issues. The first concerns luck; the researcher, supported by well-placed tutors in the academic world or in the territory, has always the option to work, to have an almost fixed income and to work on topics closely related to his/her own interests:

The first fellowship was for three years and was renewed for one year. There was the budget for the three years that became four, actually. And then I worked for other professors: I had three different tutors. [...]. Then, to tell the truth, since the faculty staff was quite cohesive, they helped me wherever I could go. So, I have been working for four years with a professor, two with another one and now I'm in my second year with another one. So it's eight years of research grant. [...] A Committee of the Region had a certain spending power; other private entities also contributed for the fellowship. They were benefited from the relations the professors have. They are personal relationships. They are the best provision... absolutely. It was possible to exploit personal relationships of professors who in the past were involved in politics (male, scientific field).

The second issue depends on the first one and it concerns the competition: those who do not have the good fortune to work consistently with their subject, because the favourable economic conditions and the right academic stimuli are not there, obviously lose ground for what concerns experience and scientific production and this does not allow to nurture talent and passion.

These two considerations depend on another factor that concerns the Italian education and labour system: the relationship between territory and Universities. On the one hand, an economic-entrepreneurial tissue which is structurally (company size) and culturally (many entrepreneurs do not have adequate preparation to do business) unfavourable to investment; on the other, a university that only few years ago started working in a more conscious and consistent way to present itself to the territory.

To all this we must add the reflection on internal contracts of the University. In fact, the satisfaction from the academic work is even worse. Not only contracts are not satisfactory for most of the sample to which the questionnaire was administered, but the picture that respondents have over the future job prospects is even gloomier.

The cutbacks in public University, the lack of generational turnover of

professors and a mediocre contribution of the private business fabric in Italy are provoking a chronic suffering of the research which, due to lack of funds, always struggles to innovate and produce strong results, useful to the national territory.

The dissatisfaction is visibly cross-sectional to the entire sample (table 13).

Table 13. Satisfaction of the individual professional situation in relation to:

	Research activities	Contract	Current prospects
For nothing	4,1%	20,8%	56,9%
Few	11,2%	24,4%	28,9%
Partially	27,9%	36,0%	9,6%
Enough	36,0%	14,2%	2,5%
Totally	20,8%	4,6%	2,0%
	100,0%	100,0%	100,0%

(n. 197 = 100,0%)

All of this, together with the fact that more than half of the sample complains about the difficulty of constantly working in the field of research, of finding other funds and of carrying out few activities at a time, would allow a more thorough examination of the subjects of study.

Comparing gender, age and disciplinary field of interest, relevant differences are noticed (table 14 and 15): men more than women perceive a higher difficulty, those who work with unstable contracts from a longer time compared to younger researchers and those who belong to humanities rather than the scientific-technical field⁸. These differences are due to a higher involvement in academic (and non-academic) activities that divert from research.

There are indeed no relevant differences of gender and disciplinary field of affiliation for what concerns raising funds and the fact that it is not possible to work on few subjects because it is necessary to think of raising new funds at the same time.

⁸ The interviewees were asked to choose among: no, in part, yes.

Table 14. Inability of giving continuity to research activities in relation to

	Gender		Scientific area	
	Female (n. 92)	Male (n. 105)	Soft Sciences (n. 47)	Hard Sciences (n. 150)
Yes	40,2%	57,1%	61,7%	45,3%
	100,0%	100,0%	100,0%	100,0%

(n. 197 = 100,0%)

Indeed, differences are noticed between those who have worked for a long time and the younger of the sample.

The problem of precariousness becomes a trap, over time, that tends to frustrate more and more the consistency and continuity of the research activity. This is particularly true now as not only the funds have been reduced, but also the criteria to get them are increasingly exclusive. Also, some Departments decide to redirect the scarce resources especially to the younger researchers, rather than to those who have a longer experience, and this could partially explain the difficulty lamented by the “old researchers” to raise funds.

*Table 15. Impact of the contractual situation on research activities in relation to⁹**a) Age*

	28-32 (n. 45)	33-35 (n. 55)	36-40 (n. 65)	41-55 (n. 32)	Total (n. 197)
Not able to give continuity to the research activities	37,8%	54,5%	50,8%	53,1%	49,2%
Difficulties to access grants	44,4%	61,8%	66,2%	75,0%	61,4%
	100,0%	100,0%	100,0%	100,0%	100,0%

b) Years working in University

	1-7 (n. 101)	8-17 (n. 96)	Total (n. 197)
Not able to give continuity to the research activities	51,5%	46,9%	49,2%
Difficulties to access grants	52,5%	70,8%	61,4%
	100,0%	100,0%	100,0%

Summarizing, we can conclude the enormous difficulty of the precarious to work with serenity, to successfully specialize in the field for

⁹ Only the “yes” answers are reported.

which s/he feels more capable. Non-scientific activities and work commitments outside the University continually distract the researchers from their specific field of study. In many researchers it is noticed the absence of an obsessive attachment to the academic world, as well as the passion for the research itself, therefore they would be ready to work elsewhere; however, they consider it extremely difficult to keep doing research outside the university. (Lipari, 2015, p. 3).

The subjective experience. Relationships, identity, professional ethos between training and frustration

In consequence of the results of the questionnaire, which have highlighted the difficulties of precarious researchers to give continuity to the work and the obstacles to professional growth, the research team wanted to deepen the topic in terms of precarious living subjectivity. Moreover, the semi-structured interviews were carried out on a target that operates in a territory – Salento – which offers few alternatives to the academic world in order to continue the research activity (Longo, 2007). The respondents were asked to report on the way in which they approach and have approached the most difficult moments of their careers, which strategies they have adopted and adopt to survive within the uncertain academic path.

The main dimensions of the interview were: internal and external relationships with the academic world, the perception of what the territory offers them (Toscano, 2007; Gaballo, 2007; Gallino, 2001), the passion for their work, the perception of their identity.

When asked on how they would define their lives as precarious researchers, the responses differed. Some of the interviewees defined themselves “as losers”, because of the unstable situation that has lasted for years, because they carried out typical tasks of a tenured professor but are still forced to wait for competitive state exam “to keep doing what they already do” while the criteria and procedures are constantly changing, benefiting some people and disadvantaging others (female, humanities). Of the same opinion is another interviewee of humanities, who states:

But now we live in a period from the historiographical point of view for which if you work in the field of history of the territory it is considered

something less important. So on the one hand it is possible to raise small funds to get the research grant or... on the other hand for what concerns the historiographical field we are... With National Academic Qualifications some researchers had a negative judgement on the basis of the research they carried out and not on the basis of the skills and content [...]. It was considered that the history of the territory is a small thing. (male, humanities).

Feeling displaced by ever-changing assessment criteria and by the constant depletion of public funds is particularly felt by those who noticed over the years an ambiguity in the supervisor, who seems not to have confidence in those who were considered “young people to be launched in the academic world” (Baron, Field & Schuller, 2000; Mutti, 1998; Garfinkel, 1963); this, despite the good results and the compliments received.

Interviewing 8 researchers – precarious for nine years on average, including the period of the Ph.D. – the importance of the supervising professor was noticed. S/he is considered crucial for the career of the researchers: for the quality and quantity of the scientific production, for the participation on the researches, for the relations within and outside the University in which they work (The Boston Consulting Group & The Network, 2014; Sennet, 2012).

Unfortunately, with my professor there have been ups and downs... although, as I said, it was him who looked for me, he knows my potential, however, still does not allow me to express it, or only in a few moments. That's it, he wouldn't let me stand out! For two reasons: either because he prefers to distinguish someone else; but then, there is another thing: when someone has the skills - I do not say that it's me, it can be someone else - the intuition that may be important, is often the one that is stopped because s/he can be a long-term competitor (male, scientific field).

I have a great relationship with my professor, of friendship too [...]. Then she is human and lives the academy in a fair manner, in my opinion: there is life outside and you do not live only in the academy. I think that's important...! A professor who does not go on vacation, who also calls you at night because during the day you have to deliver something for him: I know many of these stories [...]. I have not yet given up for her and for my family [...]. Some time ago I heard a friend, “I'm fed up with it because he doesn't care about me, he just exploits me, there is this kind of cooperation, but then

I know that there is no room for me so I'm wasting my years in this way, senselessly" (female, humanities).

One of the problems that a precarious researcher should face, in order to stabilize the relationship with the supervising professor, is the rivalry with colleagues who are in the same situation. This is due, according to the respondents, to the ease in which the professors get the resources of the Department and determine the structure of the research groups, allowing entry and stabilization of precarious employment over time; however, according to some respondents, they do not often start a clear selection process, focusing their attention on this or that researcher within "their" precarious researchers. This situation persists despite the reduction of economic resources.

At one point I think so... it depends on the professor being able to know how to build well-structured research groups [...]. This thing happened and I think it still happens. Although the recruiting process has changed - so to speak - but I think it's still happening (female, scientific field).

The relationships with my colleagues of the same level, even if there is competition, someone tries to do the *prima donna*; why is this so? Because there is a battle of have-nots. You always try to earn a bite more. It depends on the capacities of the individual [...]. The problems were with those in power, with your boss [...]. There is favouritism (male, scientific field).

It happens... it happens here in our Department as well. The conflict between Heads of Departments has consequences on the precarious researchers [...]. Obviously it doesn't only depend on your ability to remain here: it depends on favourable terms, including the presence of your tutor. You must be in the right place at the right time (male, scientific field).

I had three different tutors [for research grants] ... for reasons of funding, because the tutors use personal funds and for specific scientific requirements. And then, finding myself in a department with a fairly cohesive faculty staff, and if they can help me, they do [...]. So it is eight years of research. The ninth is already planned (male, humanities).

From these excerpts of interviews, it is possible to identify two points of interest: the importance of the supervising professors, both for the power that they hold and for their ability to build cohesive and productive groups (Gosetti, 2006). The first point concerns the ability of the professors to

divert resources based on the “personal” projects, which often involve other colleagues of equal degree and researchers. This makes them obviously *deus-ex-machina* so fundamental for the development of the Department itself and for the entire university for which they work; in this way, they become the main direct and indirect recruiters of human capital for the research. And for what concerns the second point, this power allows the professors to create working groups, with consequences on the development of research and the future of the precarious researchers.

In fact, the more the human capital is determined not by objective rules of recruitment, but by personal discretion, the greater the risk of producing informal relationships between tenured professors and precarious researchers with unpredictable and often negative outcomes, in terms of scientific production. In fact, the future of the precarious researchers is also determined, especially in some cases, by the relationship that they manage to structure with the professor or the professors of reference and the type of relations existing with those who can decide the contractual resources, finally by the relationships that they are able to establish with the colleagues of the same level.

The interviews revealed another element: the fate of a precarious researcher depends on his/her tutor also for the quality of the international academic networks and those outside the academic world. The personal dimension of academic relations and the territory emerges as a key element for success in the career of a precarious researcher.

Even there, if there is no trust and recommendation from the internal professor... Often a letter of reference is needed, to put in a good word from the professor, in order to have relationships with professors abroad, but that didn't happen to me. On the contrary, when other professors wanted me in their team, my professor blocked me, it seemed that he wanted me in his staff. I was flattered, also because I have always preferred to stay here as I deeply know the territory and I developed a kind of network. I'm quite well-known in the area. Then life is also made of other things, and anyway I feel very comfortable here (male, scientific field).

The group works hard at international level, therefore, it makes things easier, because projects are European and we work with other groups out of this University. But the group is internationally strong, otherwise it is difficult, very difficult... (female, scientific field).

We always work with Germany, ours is an international group. We have an international doctorate. I'd go anywhere [to work], with great difficulty, but I would do it. It is not what I want, but... I want to keep doing what I do, I mean... I'd rather stay in Lecce, but I can work somewhere else, to meet a working environment that is not Salento (female, humanities).

In recent years, we are facing the problem of how the territory can be receptive and how it is possible to be useful to the territory. In the past there has been a short sightedness from this point of view... the relations with the outside. On behalf of the University, of this Research institute, which was bound to a somehow different vision, a kind of protected environment... Now things are changing. We try to run for some projects financed with European funds and which are interesting for the territory. Companies do not seek us, we do generally look for them [...] (male, scientific field).

Surely the relational networks [of the professors] are stronger with the regional administrations rather than with the academic institutions [...]. I was able to take advantage of personal relationships among professors who had political activity in the past. There is the personal relationship that then develops on the official plan and procedures... The funding also derives as a consequence of trends: for example, environment is on the foreground and they finance environment, tomorrow the artistic heritage... [...] Abandoning strands of previous research that instead could bring about development, because at that moment this doesn't catch the attention of the politician [...]. There is not even the need to disclose the results or to use them in any other way (male, humanities).

From the several excerpts of the interview it is possible to identify three elements. The first is that the tutor can be a highly-connected and/or qualitatively well-connected in the academic field and it could be an advantage to the Department and especially to employees. Some interviewees state that often the tutor is opposed to the will of the precarious researcher to seek a job stability in another university: that of course satisfies the researcher, as a recipient of the confidence of his tutor and, at the same time, has high hopes of being able to remain in his own land. However, if the researcher had the intention of having an experience abroad, s/he is afraid to find the doors closed once his/her intentions to return to work in the same department are manifested.

However – and this is the second point of reflection – the economic crisis of the Italian University and the age (now advanced) of precarious

researchers make this discourse obsolete, because resources are scarce and tutors are now pushing their employees to find other opportunities.

In brief, this is what has emerged: the beginning of a promising career, also because the University had another set of rules and quite different resources; more opportunities to stabilize the researcher on site or in Italy or abroad, because the academic contacts of the supervisor were productive on different levels; ultimately the weakening of hopes with older age, with personal and social needs that have changed and that make it even more difficult to move; all in all external Universities that no longer need them. But above all, as stated by many, at a certain age the researchers do not have the energy, the desire to leave everything they built professionally and socially. Only in case of extreme necessity they are ready to be placed elsewhere.

The third topic concerns the relation with the territory. Few among the respondents express serenity for the fact that the professors of reference have structured stable relationships with various research institutions and with other universities or with the territory, from which they draw resources or jobs. However, a solid relationship with the territory can activate two processes that are not always successful. On the one hand, the link with the institutions or with companies enriches the curriculum of the researcher: funding coming from the territory serve to banish competitions for research assistants, for precarious researchers or other types of contracts, in this way the precarious researchers can keep working with the University, thus enriching their background qualifications and publications; this in the hope of an academic stabilization. On the other hand – but this does not concern any of the respondents – the territory and University collaborate for the growth of each other, along with developing research road maps and implementing the results. On the other hand, the precarious researcher involved becomes an important link for the partnership, with the possible outcome of finding placement in the company: it is possible that some Ph.D. students without scholarships are given the opportunity to carry out research at a company that finances the three-year doctorate, sometimes with the researcher's placement. Or there is a synergy between a research group and an important company:

To tell the truth we operate on different channels. The most important one is a direct relation with the Universities. We hire the graduates from there [...]. Among the computer technicians, the new graduates are contacted through

the University, specifically, on reporting professors. We directly ask the professors to tell us those who are, for each graduation session, the smartest among the students they have tutored during the thesis. For example, just this week a number of interns, reported by the University, are about to start (Gaballo, 2015, p. 172).

As seen, the relationship with the supervising professor and the share capital of the latter are considered the two most important factors for the future of the precarious researchers. Therefore, they combine to determine the perception of the self and the ethos of the researchers. There are of course other important factors that determine the perception of the self and the professional ethos: the origin of the interest for the discipline and the training over the years of study and research.

The respondents said that the passion for the discipline and the research work have been instrumental in creating in them an obstinacy as to persuade them to work for years in precarious conditions, also facing many months without an income.

Obviously the stubbornness and passion are not enough, because the economic survival takes over: there are those who have economic family support, those who say that they have never been without a contract except for a few months during their career, those who succeed in earning an income from research and training projects in non-academic environments.

The perception of the self is based on all these factors:

Most people I know [outside the academic field] consider me crazy! Because you cannot live up of dreams till your 40's, you cannot live without a salary and work very hard, you cannot compromise and sacrifice summers to write [...]. So this matters, because you lose credibility... This career doesn't prevent me to have social relations outside, but it alters my image. (female, humanities).

I was considering another option. I've a family counselling office, so... If things had gone wrong, of course I would have been disappointed, right? Even because you do all your best and then you are relocated elsewhere... [...]. The idea of flexibility on people's life is foolish [...]. I feel myself an educationalist, because education cannot do without relationships and change [...]. How do I see myself in five years? Now I am a researcher and I'll fight to become an associate professor [...]. I prefer to stay in university because I like the research and teaching (male, humanities);

I consider myself a researcher. Because in the philosophical texts there is so much to discover [...]. This is the most beautiful aspect of my work. So, in the future I would imagine myself as a researcher anywhere, not necessarily at the University [...]. I learned how to manage the uncertainty sense. I do not think about how I see myself in five years. I focus only on the present and on what I have accumulated in terms of qualifications and skills (female, humanities).

Although in different ways, the respondents expressed a common concept clearly defined: they are still willing to sacrifice themselves in order to continue the research work. They consider themselves researchers because they study, compare themselves with others, they are trainees and trainers. Everyone, in the same way, claim to have found a “balance”, others prefer to talk of resignation to a precarious condition. However, the precariousness arises as being overbearing and overtakes the status of the researcher.

The topic of the perception of the self-encroaches naturally on the perception of the ethos: if the research is the main activity of the daily life, so that someone has difficulties to have a private life and social relationships, hardly ever the moments of frustration can distract them from the duty for a “well done” job:

Sometimes yes, to be honest. I know I can give a lot more, but I don't do it because you have to take it one day at a time. We must first think about making a living. Research needs time and sometimes these things get stuck or postponed, and these things block your research [...]. For me, research is something indispensable, as an asset inherent in you, but sometimes there are moments of frustration and these are the moments in which the research tends to get stuck. Some just scrape a living and try to enjoy the moment (male, scientific field).

[...] I had to do other activities that I did not like, and so I was unmotivated to do research. I did what I had to do, because that was what I was required [...]. The research work is a particular job: first you must be stimulated and then you must do it, you have to be into it. This is the only way you can produce something meaningful. (female, scientific field).

Honestly, highly disappointed [...]. It is a job that requires passion, you put all your good will, working night and day, sometimes, but the initial

enthusiasm has definitely changed; a bit also because of the age. I am well aware of it! (male, scientific field).

For the respondents research is passion, it seems to be the most intimate side of their own subjectivity. Certainly, they have become more judicious in their choice of activities, especially in the timing of the completion.

Being involved in different activities emerges as a further frustrating factor: administrative procedures, research projects, teaching and tutoring for students impact on the research, because besides wasting time, it mentally distracts the concentration on a task that needs concentration - as often claimed by the respondents - constant attention, stimulation and discussion. The waste of time damaging the research results in

- a) loss of competition - you cannot publish as much as you would like,
- b) perception of injustice - if there is a contract for research and the professors often demand completely different tasks to be done,
- c) exploitation/implicit blackmail - you cannot say no, because the future of the precarious researchers depends on the relationship with the professor who has placed confidence in them.

Conclusion. A dying-out profession

From 2000 the European Commission launched the idea of a “European space” of research in order to coordinate activities, programs and national and regional research policies and initiatives conceived and financed by the European Union (European Commission, 2000). In the text the alarming situation of scientific and technological research in the European countries emerges.

Among the reasons listed by the Commission there is the insufficient share on the GDP, a gap between public and private spending, increased fourfold over the last few years, the increase in the deficit of the trade balance for high-tech products and the scarce presence of scientists in the work market (*ibid.*): this happens taking into account that, as stated by the Commission, 25% - 50% of the economic growth depends on scientific and technological research.

Seven years later the European Commission considers, through the Green Paper (European Commission, 2007), new ideas to tackle the challenges and issues of the fragmentation of the research, the

underinvestment and the gradual internationalization of science and technology. Since then there have been some important measures in the field of science and technological development, including financial incentives, new institutions and a coordination to help the most disadvantaged regions of the member States.

However, as noted above, over the past 8 years in Italy the public spending in favour of research has been drastically reduced, undermining the very existence of some universities, especially those of medium and small size of Central and Southern Italy (Viesti, 2015; Cineca, 2007).

As a consequence, in order to finance research, the universities have increased their economic needs from private sources. However, as emerges from the interviews, from several years there is not a political plan to upgrade the national entrepreneurial fabric (Banca d'Italia, 2014, pp. 17-27 and pp. 51-60), which therefore is inadequate to invest in highly qualified human resources.

This primarily concerns the fields, such as humanities, which do not have an immediate economic impact, often attacked in the media as unnecessary for the development of the territory.

Having said that, it seems that in Italy the researcher is a profession threatened with extinction and this process takes three different forms, but closely interrelated.

The first form (extinction in the “classic” sense) can be clearly seen in terms of numbers (absolute and percentage): since 2008 there has been a sharp decline in tenured-track professors (-23.3%), associates (-11.6 %) and researchers (-6.7%); the number of Ph.D. students has reduced too, because the number of scholarships has been reduced and because less graduates believe that it is worthwhile to commit in the uncertain and suffering academic world.

The second meaning of extinction (“extinction for transformation of the profession”) takes place in the increase in precarious researchers, which is an indicator of the state of suffering faced by the Italian academic world. The increase in the number of researcher fellows and research assistants depends on Ph.D.s, now adults, who were hoping for a stable placement in the university, who have realized – as appears from the survey and the qualitative interviews – the almost inevitability of the professional uncertainty and the transformation of the profession: not researchers, in short, but project managers, fund seekers, tutors, administrative staff, substitutes – often unpaid – of tenured professors; in other words,

handymen of academia. The consequences of the situation are obvious: doing research takes time, concentration, constant attention towards the object of study, in order to create something original and useful.

The third and last form of extinction (extinction of “sense of the self” as researcher) is closely related to the second one and concerns the subjective experience. As appears from the qualitative interviews, while trying to resist by means of a strong professional ethos, the researcher perceives insecurity in various ways; it is not only a contractual uncertainty (we could talk about flexibility), but it pervades the whole academic experience of the knowledge worker: beside the activities, other than research, which the researchers are required to carry out, we must add the fact that the precarious workers often feel blackmailed in expressing their will to reject tasks not due, or to contradict the supervising professor about methodological or theoretical issues. Finally, the uncertainty about the future: next future, because most researchers do not know if they will have the opportunity to explore the topics of the research or they will be forced to change, because the funds tracked lead on different areas; distant future because they are aware of the very low probability to stay in academic world or to be placed in the private field as researchers.

In consequence of this brief consideration, it can be said that if in Europe there are concerns of the low number of researchers in the different areas, in Italy the situation is so tragic that we should not only worry about the negative effects it has on the economy, but also – and above all – about the cultural and political strength of the nation.

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