LIFESTYLES AND PERSPECTIVES OF PhD STUDENTS OF ITALIAN UNIVERSITIES $^{\rm 1}$

Giovanna Da Molin, Elita Anna Sabella

1. Introduction

Lifestyle refers to "a set of practices with unitary sense and relational meaning, which is a distinctive model shared with a community without having either a preexisting cognitive-value framework or a predetermined sociostructural condition as generative elements, even though it may be influenced by them" (Barzano, Genova, 2014, p. 11). Furthermore, a style of life "is built up through the striving for a particular goal of superiority" (Adler, 1929, p. 117). Therefore a similar approach to lifestyle refers to the way individuals live their life, namely their activities, their consumptions, their attitudes, their interests and their opinions. For this purpose, this study provides an overview of people's lifestyles and perspectives, focusing particularly on a specific segment: PhD students² enrolled in Italian universities. The PhD program is very demanding in terms of time and effort, such that it leads to a reprogramming of life rhythms. Even though it is a high level educational experience, it doesn't necessarily guarantee access to the world of work, nor to a career in the research field (ISTAT, 2015, 2010).

2. Data and methods

This research aims to study lifestyles of PhD students from Italian universities, focusing on specific aspects such as how they spend their spare time and how they contribute to a sustainable development³ through the adoption of responsible

¹ Paragraph 4 is due to G. Da Molin and paragraphs 2-3-5 are due to E.A. Sabella. Paragraphs 1-6 are due to both the authors.

² The Doctorate is a Post-Graduate qualification at the highest level of education. It was established for the first time in Italy in 1980 (Italian Law dated 21 February 1980, No. 28; Italian Presidential Decree Law D.P.R. dated 11 July 1980, No. 382).

³ Sustainable development has been defined in Our Common Future Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". World Commission on Environment and Development, *Our Common Future*, Oxford University Press, Oxford 1987.

behaviours using natural resources, while taking into consideration the interests of future generations (e.g., using natural resources in household, studying and working places, recycling and reuse, eating habits). Moreover, this study examines the operative plans and several perspectives of early stage researchers⁴ about their professional future after doctoral graduation.

A web survey⁵, based on the LimeSurvey software, was used in the period between May and October 2013. Subsequently, data was imported and elaborated using the SPSS software. Univariate, i.e., frequency distributions, and bivariate, i.e., cross-tabulations⁶, analyses were computed.

The reference population includes PhD students belonging to the XXVI, XXVII and XXVIII cycles. In order to estimate the amount of population and in absence of a doctoral registry, the number of posts in PhD courses collected and published by Cineca has been used as data⁷.

The survey was carried out using quota sampling methodology (Corbetta, 2014). As a premise of quota sampling is to set a target number of completed interviews (Lavrakas, 2008), the sample size has been established at 1600 participants. The population of interest -composed by 38037 PhD students- has been subdivided into strata defined by three variables: the geographical area of Italian universities where the PhD calls were made, the PhD cycle and the field of study of doctorate degree courses⁸. The proportional weight of each stratum (i.e., the portion of the overall population that belongs to each group) has been calculated by dividing the absolute frequency of each stratum by the total number of individuals in the population (table 1). The quotas of the sample (i.e., the number of interviews to be conducted in each stratum) have been established by multiplying these weights by the sample size (table 2) (Corbetta, 2003, p. 221).

⁴ The term early stage researcher refers to researchers in the first four years of their research activity, including the period of research training.

⁵ Two ways to reach PhD students were used. Firstly, Associazione Dottorandi e Dottori di Ricerca Italiani sent the questionnaire link to its affiliates. Secondary, the Italian Universities sent an email to their PhD students.

 $^{^{6}\}chi^{2}$ test was used to study the significant relationship between two variables with a p value < 0.05.

⁷ Italian calls for applications for admission to PhD courses are available at http://cercauniversita.cineca.it, in the section "Dottorati" of "Cerca Università" system (MIUR-CINECA).

⁸ PhD courses have been divided into three fields of study according to their main scientificdisciplinary sector: Scientific field (Mathematics and Computer Science; Physics; Chemistry; Earth Sciences; Biology; Medicine; Agricultural and Veterinary Sciences; Civil Engineering and Architecture; Industrial and Information Engineering); Humanistic field (Ancient History, Philology, Literature and Art History; History, Philosophy, Pedagogy and Psychology); Juridical, economic, political and social field (Law; Economics and Statistics; Political and Social Sciences).

Table 1 – Distribution of reference population by geographical area, cycle and field of study of doctorate degree courses (absolute values and percentages).*

Aroo	Cuala	Field of study**							
Alea	Cycle		S.f.		H.f.	J.e	.p.s.f.		Total
		A.V.	%	A.V.	%	A.V.	%	A.V.	%
	XXVI	4338	11.4	811	2.1	892	2.4	6041	15.9
North	XXVII	4536	11.9	869	2.3	793	2.1	6198	16.3
	XXVIII	4511	11.9	828	2.2	843	2.2	6182	16.3
	XXVI	2480	6.5	651	1.7	888	2.3	4019	10.5
Centre	XXVII	2481	6.5	599	1.6	765	2.0	3845	10.1
	XXVIII	2550	6.7	569	1.5	701	1.8	3820	10.0
South	XXVI	2097	5.5	442	1.2	451	1.2	2990	7.9
and	XXVII	1672	4.4	357	0.9	400	1.1	2429	6.4
Islands	XXVIII	1775	4.7	390	1.0	348	0.9	2513	6.6
Total		26440	69.5	5516	14.5	6081	16.0	38037	100.0

*Source: our Cineca data processing.

**S.f.=Scientific field; H.f.=Humanistic field; J.e.p.s.f.=Juridical, economic, political and social field.

Table 2 – Distribution of the sample by geographical area, cycle and field of study of doctorate degree courses (absolute values and percentages).

Aroo	Cuala	Field of study*							
Alea	Cycle		S.f.		H.f.	J.(e.p.s.f.		Total
		A.V.	%	A.V.	%	A.V.	%	A.V.	%
	XXVI	182	11.4	34	2.1	38	2.4	254	15.9
North	XXVII	190	11.9	37	2.3	33	2.0	260	16.2
	XXVIII	189	11.8	35	2.2	36	2.2	260	16.2
	XXVI	104	6.5	27	1.7	38	2.4	169	10.6
Centre	XXVII	105	6.5	25	1.6	32	2.0	162	10.1
	XXVIII	107	6.7	24	1.5	30	1.9	161	10.1
South	XXVI	88	5.5	19	1.2	19	1.2	126	7.9
and	XXVII	70	4.4	15	0.9	17	1.1	102	6.4
Islands	XXVIII	75	4.7	16	1.0	15	0.9	106	6.6
Total		1110	69.4	232	14.5	258	16.1	1600	100.0

*S.f.=Scientific field; H.f.=Humanistic field; J.e.p.s.f.=Juridical, economic, political and social field.

The sample is made up of 47.4% male and 52.6% female students. Most of them are Italian (95.9%). Foreign citizens amount to 3.1%, while 1% of the sample holds double citizenship. The mean age of respondents is 30.17. The mean age of cycle and field of study subgroups are reported in table 3. As far as civil status is concerned, 83.2% of the PhD students are unmarried, 15.8% are married and 1% are estranged or divorced.

Cycle	Mean age
XXVI	30.94
XXVII	30.03
XXVIII	29.52
Field of study*	Mean age
0.0	20.02
5.1.	29.82
5.1. H.f.	29.82 31.54

 Table 3 – Age of PhD students. Distribution by cycle and field of study.

*S.f.=Scientific field; H.f.=Humanistic field; J.e.p.s.f.=Juridical, economic, political and social field.

3. How to spend free time

The daily routine may leave some spare time, unused for work and education, which can be devoted to fun and creative activities. Hobbies and work-unrelated commitments find their place in that time, which most of the students of the third cycle⁹ successfully accommodate with their working duties.

In particular, over half of the respondents managed to cut out for themselves around one to three hours per day, on average. Around 15% succeeded in devoting on average more than three hours per day. The same percentage, though, only managed to cut out less than an hour per day, or even worse, just some time in the weekend, for work-unrelated activities (table 4).

Table 4 – On average, how much free time do you have? (percentages).

	%
From one to three hours per day	51.6
More than three hours per day	16.1
Less than one hour per day	14.8
Free time only in the weekend	13.9
No free time	3.6
Total	100.0

PhD students enjoy socialization: spending time with a good friend is a priority for those who have spare time. At the same level, in terms of preferences, there are reading books, preferred by female PhDs, and practising sport, more appreciated by

⁹ Since 1999, Italian university studies have been reformed so as to meet the objectives of the "Bologna process". The University system is now organised on three cycles: the first cycle academic degree, that is the "Laurea", grants access to the second cycle that is "Laurea Magistrale", and the degree of the second cycle gives access to third cycle doctorate programmes "Dottorato di Ricerca" (PhD Courses).

male students, who particularly enjoy surfing the Internet as well. Looking after the family holds the 5th position in terms of preferences of the whole students, being it a concern or a fulfilment mostly for women. Most of the respondents, then, being them free from study and work, prefer more or less demanding activities, although rewarding, rather than a minority who loves absolute idleness (table 5).

 Table 5 – How do you mostly spend your free time?* Distribution by sex (percentages).

	Male	Female	Total
	%	%	%
Meeting friends	68.4	69.7	69.1
Reading a book	54.2	60.9	57.7
Practicing sports	61.1	54.2	57.5
Surfing the net	58.5	45.0	51.4
Caring the family	42.8	56.5	50.0
Going to cinema, theatre, exhibitions or concerts	38.2	46.1	42.4
Going to public places	41.9	38.8	40.2
Using social network	26.8	25.0	25.8
Going to clubs	14.9	12.6	13.7
Playing videogames	13.0	2.4	7.4
Idleness	4.7	4.6	4.7

*Multiple response question.

Practising sport is one of the main leisure activities, which involves three quarters of the sample, with a discrepancy of around 4% in favour of the male component. Almost half of the sample practises it regularly as a lifestyle; roughly a quarter does it occasionally. Slightly over a quarter of the respondents does not practise any sport, due especially to the lack of free time (table 6).

 Table 6 – Do you practice any sports or exercises? Distribution by sex (percentages).*

	Male	Female	Total
	%	%	%
Yes, occasionally	26.0	28.6	27.4
Yes, routinely	42.6	39.2	40.8
Yes, I do professional sport	5.4	2.3	3.7
No, I would like but I have no free time	20.7	23.3	22.1
No	5.3	6.6	6.0
Total	100.0	100.0	100.0

*p=0.004

Only a small number of cases are forced to practise sport for medical purposes while most of the people choose voluntarily to engage in physical activities. All students care mostly about their physical form, and it is true especially for men. Another purpose of physical activity is removing stress and relaxing, especially for women. Few students engage in training for aesthetic purposes. Even fewer are aware of the socializing power of gyms or parks: men, more than women, take this opportunity to enlarge their relationship network or to meet old friends (table 7).

 Table 7 – Why do you practice sport or exercise?* Distribution by sex (percentages).

	Male %	Female %	Total %
To be fit	82.4	75.8	79.1
To release pressure	62.7	69.3	66.0
To relax	65.1	65.6	65.3
Aesthetic purpose	15.0	16.4	15.7
To socialize	15.0	9.8	12.4
Medical purpose	6.1	10.5	8.3
Others	2.9	3.4	3.2

*Multiple response question.

Table 8 – What kind of sport do you play?* Distribution by sex (percentages).

	Male	Female	Total
	%	%	%
Jogging	43.0	31.9	37.4
Walking outdoor	27.1	37.3	32.3
Swimming	21.0	29.3	25.3
Cardio fitness	16.6	24.1	20.4
Gymnastic	11.8	21.0	16.5
Others	13.0	11.6	12.3
Soccer	23.4	0.7	11.7
Cycling	14.3	4.6	9.3
Volleyball	6.4	6.1	6.3
Dancing	2.0	10.2	6.1
Tennis	7.7	2.2	4.9
Combat sports and martial arts	4.8	3.2	4.0
Basketball	4.8	1.7	3.2

*Multiple response question.

The most common sports are those with no time or money constraints: jogging (37.4% of cases) and walking outdoor (32.3% of cases) are the top physical activities done by students who do not have a fixed working time schedule. Swimming, cardio fitness and gymnastics are very common, especially among women, as well as dancing. Soccer and cycling, as well as the less common tennis and basketball, involve mostly men. Combat sports and martial arts are practised

both by female and male students thanks to their relaxation effect. Additional sports are skating, horse riding, trekking and curling (table 8).

4. Daily contribution to sustainable development

Sustainable development refers to actions made to support, over time, the reproduction of world capital, conforming it to its ecological, economic, social and institutional dimensions. This outcome is reached not only by laws and decisions of the governance, but also thanks to the individual citizen's daily efforts. For these reasons living green (Varesi, 2013) has become a lifestyle, both as a trend and as the awareness that particular behaviours can really make the difference.

This analysis is focused on three main behaviour groups: using natural resources in household, studying and working places; recycling and reuse; and, finally, eating habits.

All the eco-friendly behaviours belong to the first group. Around 90% of the sample always, or at least, often, uses energy-saving lightening and optimizing expenditures especially in doing laundry. Three quarters of the sample always, or at least, frequently, use properly air conditioning restoring to other solutions against high-temperature. Over half of those questioned always, or at least, often, pay attention to promptly switching off electrical appliances (table 9).

	Never	Rarely	Often	Always	Total
	%	%	%	%	%
Using energy-saving lightening Loading washing machine in	1.9	6.0	27.4	64.7	100.0
order to avoid unnecessary washings	4.8	5.9	28.2	61.1	100.0
Using properly air conditioning restoring to other solutions against high-temperature	6.7	16.6	36.4	40.3	100.0
Checking to switch off electrical appliances	20.1	19.5	26.9	33.5	100.0

Table 9 –*How often do you have the following behaviours? (percentages).*

The second group regards recycling and reuse practices, not only to reduce the waste production but also to give garbage new life. Almost all the PhD students always, or at least, often, separate their waste. Over half of them pay always attention to the disposal of unused medicines using specific containers. This rate increases to three quarters of the students if one considers those who do it on a less regular basis, but still frequently. Almost 75% of the interviewees always, or at least, often, use cloth, canvas or jute reusable bags instead of disposable bags. Only

a small part of the students use water, milk or detergents dispenser machines (table 10).

	Never	Rarely	Often	Always	Total
	%	%	%	%	%
Separating waste	2.9	6.1	17.1	73.9	100.0
Paying attention to the disposal of unused medicines using specific containers	10.2	14.6	18.6	56.6	100.0
Using cloth, canvas or jute reusable bags	8.8	16.6	37.8	36.8	100.0
Using water dispenser machines	77.7	9.4	7.6	5.3	100.0
Using detergents dispenser machines	76.8	12.9	6.4	3.9	100.0
Using milk dispenser machines	81.6	13.5	3.3	1.6	100.0

 Table 10 – How often do you have the following behaviours? (percentages).

It is possible to have sustainable behaviours also during meals¹⁰. Concerning the eating habits, over 90% of the sample have a complete diet. Only a few students have some complete or partial food restrictions, according to ethic or health reasons. Specifically around 6% have a pescetarian, macrobiotic, vegan or more widespread vegetarian diet, with a discrepancy of 4.5% in favour of the female component (table 11).

Table 11 – Distribution by diet and sex (percentages).*

	Male	Female	Total
	%	%	%
Omnivorous diet	96.3	91.8	93.9
Vegetarian diet	1.8	5.4	3.8
Pescetarian diet	0.8	1.8	1.3
Macrobiotic diet	0.7	0.5	0.6
Vegan diet	0.4	0.5	0.4
Total	100.0	100.0	100.0
* <i>p</i> =0.001			

Although students are reticent for those that concern restrictions, they have more attitude to enlarge their diet with organic food, that is to say, biological products obtained through a type of agriculture in full respect of the environment,

¹⁰ Barilla Center for Food & Nutrition created the Double Food - Environmental Pyramid model, a tool that compares the nutritional aspect of foods with their environmental impact. It shows that fruits and vegetables have the lowest environmental impact, in contrast to beef that has the highest one. The Pyramid considers the traditional Mediterranean diet as a correct nutritional model.

natural balances and biodiversity. Almost half of the sample declares eating it, at least, often. The other 50% considers this choice useless and too expensive (table 12).

 Table 12 – Is organic food in your diet? (percentages).

	%
Yes, it is	44.4
No, it is not better than others	24.6
No, it is too much expensive	24.0
Yes, it is basic	7.0
Total	100.0

5. Professional perspectives

The PhD program is an educational path full of, as any other course of study, uncertainties and future perspectives for those who want to access the employment with a higher level of education. The respondents have operative plans, perspectives and ambitions about their professional future. Left aside a small percentage of people unable to picture themselves in the world of work, most of the PhD students seem to have clear ideas on how to proceed after the doctoral graduation. Around 70% of them aims to use his own knowledge in a job in the same field as that they have studied, even if this could mean leaving home: in particular, about 30% intend to leave their own city and 36.1% are willing to leave their own home country.

 Table 13 – What do you want to do after doctoral graduation? Distribution by sex (percentages).*

	Male	Female	Total
	%	%	%
I will look for a job related with my education even if this could mean going abroad	40.9	31.8	36.1
I will look for a job related with my education even if this could mean leaving home but not my Country	29.7	36.7	33.4
I will look for a job not necessarily related with my education to stay at home	11.7	14.7	13.3
I will come back to my work before PhD course	11.6	9.5	10.5
I don't know	6.1	7.3	6.7
Total	100.0	100.0	100.0

*p<0.001

In detail, PhD male students reveal a major attitude towards moving, even abroad, to reach personal fulfilment, more than female students, who are more willing to move inside the national boundaries. Very small is the percentage of those who don't want to leave their own home city, at the cost of doing a job which is unrelated with their studies. A minority of the respondents consider PhD courses as a cultural experience and as an occasion of personal growth, in view of a reemployment in their old working place (table 13). their own education.

 Table 14 – What do you wish for your professional future? Distribution by field of study* (percentages).**

	S.f.	H.f.	J.e.p.s.f.	Total
	%	%	%	%
I would like to pursue academic career	43.8	62.1	55.0	48.3
I would like to work in a field coherent with my education, not in academic environment	30.9	24.1	24.0	28.8
I would like to work in research, not in academic environment	21.2	9.5	17.1	18.8
Other	4.1	4.3	3.9	4.1
Total	100.0	100.0	100.0	100.0

*S.f.=Scientific field; H.f.=Humanistic field; J.e.p.s.f.=Juridical, economic, political and social field. **p<0.001

 Table 15 – How do you imagine your professional future? Distribution by field of study* (percentages).**

	S.f.	H.f.	J.e.p.s.f.	Total
	%	%	%	%
I will work in the field of my education	45.0	41.0	45.0	44.4
I will pursue academic career	20.5	24.1	24.4	21.6
I will work in research field, not in academic environment	18.4	10.3	18.6	17.3
Working in a different field	9.9	15.1	8.1	10.4
I don't know	6.2	9.5	3.9	6.3
Total	100.0	100.0	100.0	100.0

*S.f.=Scientific field; H.f.=Humanistic field; J.e.p.s.f.=Juridical, economic, political and social field. **p=0.003

Despite giving priority to career or personal affections, most of the PhD students dream of working in the research field. In particular, almost 50% wishes an academic career and 18.8% would like to do research beyond the academic environment. 28.8% of the third cycle students aim to use their own qualifications and skills in the same field of The remaining 4.1% is made up of the most pessimistic students: they are looking for any kind of job as long as it will let them

survive. The PhDs in humanistic field, more than their colleagues, identify their university career as the dreamed job in the research (table 14). The opportunity to get a job in line with their own skills seems to be the most easily reachable: 44.4% of PhD students is confident of working, after doctoral graduation, in the field in which they studied. On the other hand, the awaited career as a researcher, represents the hardest goal to reach -especially for those attending a doctorate course in humanistic field- as shows the small number of people who picture themselves doing research, inside or outside universities (table 15).

6. Conclusion

The pursue of physical and mental state of wellness is shared by all the interviewees' lifestyles, inside and outside the academic field. Free time represents, in this view, a fundamental asset for PhD students, who mostly do not waive it.

Wellness also means taking care of the environment: recycling and reusing in household, studying and working places. As regards eating, in a sample where the majority is Italian, there is low interest in alternative diets.

Well-being meant as gratification also finds its way into the involvement in the job and in future perspectives: for students who devote their time and energy to research, priority is giving value to their own knowledge, at the risk of moving out. While keeping working in the same field of study is feasible, the project of continuing doing research seems very hard to pursue.

According to this study, the question of whether it makes sense to invest in the third cycle education, finds a positive answer, provided that the knowledge and experience gained by the students could be transferred smoothly from the academic to the world of work.

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SUMMARY

Lifestyles and perspectives of PhD students of Italian universities

This paper provides an overview of lifestyles and perspectives of PhD students enrolled in Italian universities, bringing the attention on particular aspects such as the use of spare time and the adoption of sustainable behaviours. Professional expectations for early stage researchers are also examined.

The sample -built via the method of quota sampling- is composed by 1.600 PhD students belonging to the XXVI, XXVII and XXVIII cycles. A web survey, based on the LimeSurvey software, was used in the period between May and October 2013.

The most of PhD students don't give up wellbeing managing to cutting out for themselves free time every day. They can choose in a rich range of opportunities: they enjoy socialization, although they don't despite solitary activities. PhD students are aware that particular behaviours can really make the difference, so most of them have sustainable behaviours of any kind.

PhD students give priority to their own knowledge: they are looking for a job related with their education and skills even if this could mean leaving home. While keeping working in the same field of study is feasible, the project of continuing doing research seems very hard to pursue.

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Giovanna DA MOLIN, Università degli Studi di Bari Aldo Moro, giovanna.damolin@uniba.it

Elita Anna SABELLA, Università degli Studi di Bari Aldo Moro, elita.sabella@uniba.it