

Los cuidados en el laboratorio y la vida familiar en la academia

The cares in the laboratory and the family life in the academy

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RESUMEN

Esta investigación se enmarca en los estudios sociales de la ciencia y la tecnología, específicamente en las nociones de Karin Knorr Cetina, además de la consideración de la “crisis de los cuidados” a lo largo de la investigación y los resultados. El objetivo de la investigación es el análisis de la búsqueda del equilibrio en la relación entre la vida familiar y los académicos, específicamente en la distribución de las responsabilidades de cuidado. Pero además de indagar en aquello surge de parte de los entrevistados la noción de cuidados no solo aplicada en el contexto familiar, sino que también llevándolo al ámbito laboral (laboratorios químicos), desde donde se construyen los resultados y las conclusiones. Se realizaron tres entrevistas aproximadamente a 17 casos de académicos y académicas en una Facultad de Química de una universidad chilena, desde una aproximación biográfica con base en los relatos de vida de cada uno. Las conclusiones radican en la problematización de la noción de cuidados en otras áreas de investigación, siendo en este caso en la ciencia.

Palabras clave

Género; familia;
universidad; biografía

ABSTRACT

This research is part of the Social Studies of Science and Technology, specifically the notions of Karin Knorr Cetina, along with the consideration of the "care crisis" over the research and results. The objective of the research is the analysis of the search for balance in the relationship between family life and academics, specifically in the distribution of care responsibilities. But in addition to investigate what emerges from the interviewees the notion of care applied not only in the family context, but also taking it to the workplace (chemical laboratories), where the results and conclusions are made. In this research are realized 3 interviews in any cases of 17 academics (woman's and man's) of a Faculty of Chemistry, a Chilean university, from a biographical approach from the life stories of each. The findings lie on the critical of the notion of care in other areas of research, which in this case in science.

Keywords

Gender; family;
university; biographic

INTRODUCTION

This article is meant to be a review of the results of a research on the relationship between the family life and the academic experience of chemical scientists (men and women) of a Chilean university. Based on this study, the notion of “care”, one of the categories of analysis, notwithstanding the fact that, at the beginning, it was not part of this research, arose as the study progressed.

This notion emerged not only from the distribution of housework between men and women of a same family, as it is a setting of production and reproduction of gender inequalities (Arriagada, 2014), but also within the work carried out in the laboratory since it is above all a way of naming the work done by chemists with live organisms. Many chemists mentioned this notion in the context of having to constantly monitor the development of organisms; for example, having to be present at certain times to feed them and watch them, in short, take care of them.

The referential frame included in this research comes mainly from the social studies of science and technology, supplemented by literature that treats the “care crisis”. Despite the above, “care” and its provision has shown to be unequal in family life as well as in academic experience, subject to the gender of the person who cares and is taken care of (Batthyány, 2011; and Rodríguez, 2010).

The relationship “caring /taken care of” does not exist only among human beings. It transcends human borders to be applied to the relationship with objects, materials and other inanimate objects. For example, when scientists describe their daily activities in the laboratory, they convey with a great emotional charge the care they give to certain organisms, in feeding them and supporting their development, showing also the level of indeterminacy and contextual contingency that determines the scientific practice.

The study of 17 cases with approximately three encounters each, seeks to answer from a biographical approach the following questions: How to understand the care within the family life of academics? and What happens when the concept of “care” is transferred to other contexts, such as a scientific laboratory? With these questions, we aim at cooperating in the discussion on the production and organization of care (Faur, 2014) in the Chilean society.

In the following document the reader will first find the development of the frame of reference from the social studies of science and technology, more specifically from the standpoint of Karin Knorr Cetina. Secondly, the methodological approach of the research is required to bring about, in third place, the results obtained in this research. Lastly, the article ends with a discussion about the application of the notion of care not only in a context of human relationships, but also of relationships with non-human beings, in this case, in laboratories.

Development

Reference framework: care in the laboratories from the social studies of science and technology.

In the late seventies, Bruno Latour made a series of publications that would open the way to what would later be called the social studies of science and technology. Several writings of his authorship (1994a, 1994b, 2001) along with those of other authors (Law, 2004, Callon, 2008) have lead the way to increasing research on science and technology from a “relationist and non relativist” perspective (Vinck, 2014). The preferred setting for these studies has been the laboratory.

Latour and Woolgar’s “Laboratory Life” (1996), “The Pasteurization of France” (1988) and “Science in Action” (1987) are only a few of the classic studies of this movement. These are characterized by a great emphasis on empirical research, alluding to an idea “of science as a network and an assembly of heterogeneous elements that cross the different societal spheres” (Ramos, 2012, p.63). Practices, daily and local interactions of scientists are addressed in a significant manner, since the authors recognize that the construction of science networks go beyond the spaces defined as a priori scientific. Thus, they manage to chain the entire process of scientific knowledge production by incorporate cognitive content and context.

In social studies of science and technology, research not only incorporates humans as process agents, but also refers to all kinds of elements within the network of situated processes. In other words, all those non-human elements that until now have not been considered and that participate actively within the network in their co-constitution process (Latour, 2013), are incorporated into the study of the production of scientific knowledge.

This idea was even taken to the extreme by some authors such as Donna Haraway who, in conjunction with feminist currents, created the notion of “cyborgs” (2014) that refers to a cybernetic organism, a hybrid of a machine and an organism. The relevance of the various non-human elements is more visible in contexts of sciences such as biology, physics and chemistry, in which work in the laboratory is essential to research. Consequently, a large number of these studies have focused on these settings as research scenarios (Salomon, 2008).

Drawn from this new conception of all elements, humans and non-humans, the conception of the “network actor” emerged. Claudio Ramos summarizes the definition of this concept as “heterogeneous elements, human and non-human, temporarily connected to produce, in the case of science, scientific facts, i.e., knowledge accepted as valid [...] is a network of entities” (2012, page 63). He therefore provides research tools that aim at achieving an understanding of the process of construction of scientific knowledge and its interconnection with the societal and material environment.

These authors focus largely on the intermediate processes prior to their (scientific or public) dissemination, which are relegated as waste in the process of knowledge production. Therefore, one of the challenges of this research program consists in tracking

all the processes and linkages that constitute a network where the “truth value” of the scientific fact is to be found (Latour, 2001, p.87).

This research program goes through the links and finally leads to the production of a scientific article (visible product of this whole process). Should any problems, complications or failures arise along the path traveled throughout the network, then the validity of the research (and its results) disappears. A scientific article is the final product of a network, and as such, it unveils only what is written by scientists, and presents the background that should be shown (Latour, 1987).

In his study of laboratories, Latour proposes that the scientific construction has a circulating reference throughout the chain of entanglements, which is finally validated in a *paper* or scientific article (Latour, 1988, 2001, 2008). For Latour, the construction of scientific facts can be visualized in five sub-networks (2001, pp. 120-131). First, there is the “perceptual connection and instrumentation”, which are instruments, equipment and procedures that make it possible to move the world towards the scientist's laboratory.

Second, the “disciplinary network” refers to the exchange and debate of criteria and assessment among colleagues. Third, there are the “alliances to obtain resources” which refer to the continuous maintenance of a certain flow of resources that allows the maintenance of a research. Fourth, the “public representation” would be any type of network for dissemination and disclosure of scientific activity to achieve legitimacy, promoting the interest and support of these studies.

Lastly, the “conceptual nucleus”, the center of all other networks, is the conceptual articulation of science where the selected knowledge operates, in both theoretical and methodological matters. Hence, the scientific fact occurs in an environment composed of all these sub-networks that support scientific construction.

Several of these studies have revolved around what happens inside a scientific laboratory to unveil the framework of procedure, which, in most cases, is invisible. Karin Knorr Cetina, is one of the authors who has done research mainly on the constructivist and contextual character of science. In her book “The Manufacturing of Knowledge” (2005), based on its insertion in various laboratories, she concludes that: “the contextuality observed in the laboratory is permanently traversed and sustained by social relationships that transcend the site of research” (2005, P. 176), i.e., the selections operating inside a laboratory respond to a contextuality beyond the specific site of their production. Thus, the scientific work is a process of construction of a series of decisions and contextual selections that finally produces the scientific article/paper.

Knowledge is then constructed in “variable trans-scientific fields”, which are “traversed and sustained by resource relationships that constitute the networks of social relationships in which scientists place their laboratory action” (Knorr, 2014, p.121), and not by groups of professional belonging as are ‘scientific communities’. The scientific practice provided in a laboratory possesses inherently a character of indetermination and contextual contingency, therefore, “science is a social construction that must be studied in its micro-process instead of location (the laboratory)” (Kreimer, 1999, p.167), given the contextuality of scientific work.

Methodology

This paper is the product of a researchⁱ that aimed at generating an analysis of the relationship between the family life of academics (men and women) and the requirements of the academic environment, more specifically in regard to the distribution of care responsibilities and the rights to be cared for. This empirical objective reviewed the stories of the actors reviewed in depth, as well as the way they constructed their life stories around the two central concepts: family life and academic careers.

The purpose of the qualitative nature of this study was to rescue the subjectivity of the interviewees (Taylor and Bogdan, 2000, Valles, 2000), the members of the Chemistry Department of a Chilean university, who, to achieve the confidentiality of the data, will remain anonymous. The sample of the interviewees was based on two criteria. First, their gender, in order to study the possible inequalities; and second, their position (assistant / associate professor or associate or tenured professor), to look for the possible differences that would exist between those who are younger or newly entering the playing field and those with experience (Bourdieu, 2012).

Between the months of August 2014 and January 2015, we interviewed 17 cases on an average of three encounters. The selected sample is composed as follows:

Table 1. Selection of the Cases to Be Interviewed

Muestra	Tipo de cargo			Total
	Asistente	Asociado	Titular	
Mujer	3	3	2	8
Hombre	3	3	3	9
Total	6	6	5	17

Note: The reduced number of interviewees is due mainly to the low presence of women in the chemistry department, as well as the limited time they disposed of which presented the greatest difficulties of access.
Source: Developed by the author.

Biographical interviews were conducted to achieve the reflective nature of the data, focusing on gestural and body type information (Gainza, 2006. The recording and analysis of the conditions in which the interaction of the interview took place, paid special attention to the "conditions of production [...] [i.e., the] material elements (physical place of the story, available time, climatic conditions), contextual (social, political, cultural contingency), biographical (moments of narrator and narrative life), psychological (emotional state of narrator and receiver/reader)" (Cornejo et al., 2008, P. 32), and other conditions that may have arisen at the time.

The biographical method was used for the analysis (Ferrarotti, 2011, Guerra and Skewes, 1999, Kornblit, 2004, Pujadas, 2002, Bertaux, 1989, Sautu, 2004, Cornejo et al., 2008, Moyano and Ortiz, 2016). It allowed a high level of depth from everyday life, the episodes and emotionality of the people interviewed (Bernasconi, 2011, Sharim, 2005). The information was processed through Bertaux (1981, 1989)'s comprehensive analysis

from which "clues" of the milestones of the life story chosen by the narrator were identified (Kornblit, 2004). The turning points that give meaning to the story of the narrator were also identified.

Results: Care within Laboratories and Family Life

The academic career of these scientists began with the study of their doctorate degree. At this stage, men and women differ in their stories, their experiences and the way they saw this period of their life in relation to their family life. Several academics agree that the new generations participate "much more in care, attention, quality time, which also helps"ⁱⁱⁱ family relationships. However, women unlike men, still feel guilt when they fail to provide the care expected to be given to their descendants mainly, but also to the elderly or to other relatives.

In this study, the interviewees were asked to keep an open mind when answering questions in regard to their family life and their career. We observed differences in those participants who pursued a doctorate degree at the same time their children were born, especially in the way they narrated this experience in their lives. An example of the foregoing is Cecilia, an assistant professor, who arrived not long ago to carry out her post-doctorate work and who has two small children. She tells us how everything was so hasty during her doctorate studies: "I was pregnant [...] [and the scholarship] did not include pre or post natal considerations, as it now does. As I remember, I took about 2 months off and then I had to go back, I really had to go back because I had to finish my doctorate degree within the deadline."

In fact, she describes how, during those two months, she was able to further advance in writing her thesis, since all the data collection and laboratory work had been done before the birth of her child. She says that she feels guilt, given that she thought (like other academics) that she should spend more time with her family, and more specifically with her newborn daughter.

Pregnancy is identified by women mostly as a stage in which, besides being extremely "emotional", the temporality of being pregnant differs from the non temporality of the construction of a doctoral thesis which, in principle, is indefinite. María José says that before her pregnancy she had pick up an accelerated rhythm at the work, in her classes as well as in preparing her doctoral thesis but when her teaching and work were suspended, she appreciated having a few months off so she could take that time to focus on her thesis.

She also narrates her experience with a certain pride in having been able to have two children during her doctorate studies, in having continued working (teaching and doing research) and getting where she is today. She narrates how, during that period, she often visited her doctoral advisor, trying to maintain her routine, since her thesis could not be interrupted: "I was only pregnant, not disabled. [...] I always went back to class. During my two pregnancies, I never disappeared and I always went back to class."

Studying a doctorate degree is a stage in several people's lives that equates having children, with or without the active support of the significant other to care for them. In cases where the possibility of deciding when to have children exists, doctorate students usually tend to avoid pregnancy during their studies, hence, postponing motherhood and fatherhood. However, several women see pregnancy time as beneficial since their doctoral studies are directly influenced by this event, especially when it comes to writing their thesis. They consider the pre and postnatal periods as a time in which they can further the writing of their thesis.

Both interviewees said that this would not have been possible if they had not been able to rely on some external help, that is, a care support network, generally made up of women. This type of situation has been evidenced in several studies on care (Acosta, 2015, Faur, 2014, Glenn, 2012, González, 2015). It is understood that women in these situations are often support builders and "network weavers" (López *et al.*, 2012, p.147). At this stage, grandmothers, domestic workers (mentioned only in cases where families had a higher socioeconomic level) and university nurseries play an essential role in caring for the newborn children. Notwithstanding the fact that the foregoing people or institutions provide solutions to infants postnatal care, when it comes to parenting, both men and women felt that they did not provide enough personal care to their children.

Camila narrates that when her children grew up and had to go to school, "it was a big problem, [because it was] when her children had finished kindergarten, and they, the parents, had to structure the family differently". This problem was in fact mentioned by several of the interviewees who said that at that moment, they had to change their schedules and the way in which the family routine had been organized until then. Therefore, Camila had to request help from her "aunt, cousin, grandmother ...", but always from trustworthy and very close women.

Camila also indicated that the female members of her family were best qualified to carry out childcare duties given the life experiences of the women as opposed to the men in her family. By taking up again the notions and understandings of gender categories, they end up, in a certain way, producing differences between men and women in different contexts (De Barbieri, 1996, Lamas, 2000, Lourdes, 2006).

In the case of Trinidad, a foreign assistant professor, with two underage children, the issue of choosing the children caregiver was initially complex. Being newly hired and structuring her first courses and research, the nursery worked quite well for her, however, contrary to her husband, the flexibility of her own schedule, made her responsible of driving the children to and from school; "my husband has a schedule that varies a lot, that is, it is not a fixed schedule as mine [...] since I cannot leave the children waiting at the kindergarten".

But unlike other researchers, providing care for her children can be complicated since, as a foreigner, she cannot rely on family members to take care of them. She explains that she is the caregiver, and when her children have a cold or any other ailments, she has to resort to hiring a domestic worker, who helps her with certain basic aspects of the household such as cooking, washing clothes, cleaning the house and taking care of the children when she cannot.

This help is fundamental for her, and she even says that she could not have continued working at the university had it not been for her hiring and putting her trust in said help. Despite the absence of her family, a woman is always used to help taking care of children and the doing household chores. The presence of paid domestic workers (also women) is essential for the operation of the household, hence, making possible a better reconciliation of work and family life.

In addition to the help of family members and domestic workers (who often become part of the family), the geographical proximity between the house, the workplace, close relatives and the children's place of study (nursery or secondary educational establishment), represent a considerable saving of time in transiting from one place to another.

There are several cases in which the most direct relatives (fathers, mothers, mothers-in-law and fathers-in-law) lived nearby, and thanks to this proximity, it was possible to consider such care support networks, which were generally managed by the women of the family. On the other hand, living in a close proximity, erased difficulties and made it possible for academics to provide care to or help some of their relatives when needed. On the shortage of time, Javiera comments: "this period was terrible", because she had just given birth to her daughter and would be separated after a year, so the help of her mother, who lived nearby, was fundamental to her since she was able to pursue her academic career.

On the other hand, when asking academics if they had any concern in regard to their experiences during the first years of teaching and researching after being hired, the difference between men and women's responses was noticeable. The former were concerned about the economic aspect of their work, because they said that with the wages earned by a university professor, they could not always make ends meet, while the women were worried about the care they could provide to their children, whether to have children or not, and at what time it would be the right for them to pursue their academic careers.

Javier, a tenured professor, who dedicated his whole life to the university, comments that he struggled a lot economically, because "it affected his family. "I went through difficult years because I could not afford to support my children. So my wife had to work", this went against the stereotypes of that time since I was the bread winner and she, the housewife.

A second concern was the distribution of the time they could dedicate to their teaching tasks (the preparation of courses especially in the first years), their research (application of projects and experimentation in laboratories) and also the time allocated to their children (take care of them and play with them). In general, there was a clear difference between men and women interviewed in regard to the description of the time they devoted to each of the tasks above mentioned.

Men devoted more time to their academic work, reason why they used to mention that they would like to spend more time with their families. While women usually reported a greater dedication to their families without neglecting their academic work; however,

they felt guilt for not allocating sufficient time to either task, however, at the same time, they felt a certain satisfaction in achieving balance (especially after having completed their doctorate studies).

We observed that throughout their life stories, academics that have to invest their time in both working and in taking care of their children are under greater stress than those without children. Consequently, the relationship between the development of an academic career and family life is suffering. The most important thing for most individuals is to gain control of their time and manage it efficiently; this is more so for people with children.

In the case of academics, the time spent with their children does not seem so complicated, at least if we compare it with the descriptions of women's experiences, who in general are more overwhelmed by the roles they have to fulfill as professionals, women and mothers. Javiera is a good example. She says she manages to make work compatible with her family life: "I slowed down the pace a little [...] however when I was single, well, I did not have children, I used to dedicate 100% of my time to work, it absorbs you ... But afterwards I had to learn to allocate time to household chores, school, meetings ...".

She also stresses the fact that even at work, she thinks of the food she will prepare for supper, the time at which she will have to pick up her daughter and her class assignments, the materials she has remembered to buy or not for her daughter's school work, and many more things. She acknowledges that her mind keeps wandering constantly on different scenarios, making work and family responsibilities often impossible to separate.

Camila's family situation (age, stages of life, two children) is similar to Javiera's. She adds that as a mother she had to change her academic career: "I always say, everyone laughs with me, because I am a mother and I'm stupider... but if I'm stupider ... [laughter] Why do I say that? Well, one's mind cannot think in only one thing anymore as it did before. One's mind gets distracted by one thing and then, there's the children's schoolwork, the psychologist, the educationalist, the uniform, the plates and the food".

This a personal situation with which they have to live constantly, however, these efforts become natural and invisible with time, those assumptions should be understood as political constructions (Hopenhayn, 2011).

After their children have grown enough to gain greater independence, the mothers' story changes from being based on mother guilt to one marked by the feeling of pride of having been able to overcome it all. María José is an associate professor and has been a working mother for many years with two grown-up children of approximately twenty years of age. She says:

When my children were little, for example, I spent many hours here at home. Sometimes it is difficult, but realizing that this time is over is significant, now I can say that I did it and I succeeded. This also teaches one that the reward is within oneself; it is a personal satisfaction.

It is the personal satisfaction of having gone through this cycle as a woman, a mother and an academic, but at the same time, longing for the time dedicated to one's "personal life" and one's "life as a couple". The first refers to activities such as attending the gym or playing soccer with friends, while the second would be for example going to the movies with one's significant other. Both instances are conditioned to the possibility of getting someone to take care of the children (Ponce, 2012).

"Personal life" and "life as a couple" are quite scarce moments in the life of couples with children. On the other hand, these moments are different for separated couples with children since personal time is greater especially for the person who does not have the guardianship of the children, or are not their main caregivers (Solsona, 2011). People who have no partner and no children have more work and personal time.

When visualizing the level of interdependence between family life, academic career and care management (providing and receiving) are different according to the stage in which each person is. Women indicate spending more time on others (sons, daughters, father, mother, dependent family members, among others); as for men, there are differences among them (there are cases in which men carry on similar tasks as women do, and there are others that provide less family and academic care).

All scholars mention that the distribution of time between academia and family life is complex. By asking them more specifically how much time they dedicate to their work responsibilities, they all agree that working at university level, is "an almost exclusive dedication to work at the university, even if you are not doing it with manually, you are doing it mentally". In a family setting, this situation fails to reach a balance between the time they have available to provide and receive care.

These cares are not exclusive to family life, as we have seen so far, they often clash with academic careers, but they are also a concept that transcend the barrier applied exclusively to evidence human relationships, since they can also be used in relationships between humans and not humans: objects, pipettes, micro-organisms, the PhD to mention some of the most typical cases. Thus, the objects until now inanimate are gaining relevance in their own context in regard to human actors. Several research studies have already been conducted on this topic (García Palacios *et al.*, 2001, Darío Rodríguez, 2008, Ruvalcaba-Gómez, 2016, Cejas *et al.*, 2017).

In the Chemistry Department, research and teaching are carried out mainly in laboratories, the place par excellence for scientific practices (Knorr, 2014, Latour, 2008, 2013). For many academics, laboratories are central spaces, since they are able to work on their own subjects or teach their students. In fact, the time they spend there is also very variable, and depends on the material with which they work.

They often work with living micro-organisms that have times of their own, quite different than that of the academics, hence, the latter have to adapt to the former. They say that their activities in the laboratory involve taking constant care of their experiments and micro-organisms, often having to go to the laboratory at inconvenient hours, and on the weekend, they go to feed these micro-organisms (otherwise, their work would be ruined).

They have to adapt to the times of those circumstances. Sometimes academics turn to their assistants for activities outside working hours, but having such possibility depends on the resources and the type of position of the researcher. In general, when reporting these events, men and women's responses were similar - very emotionally charged -, showing the passion generated in them when talking about their research topics, their experiments, as well as their work objects and products they obtained.

Consequently, pipettes, micro-organisms, articles published, books, measuring instruments in laboratories gradually become active actors and, in need of care (word used by the same interviewees) from the daily interactions that occur in the academic life, intertwined as a network of assembled heterogeneous elements (Ramos, 2012).

The emotional charge shared by some academics for these non-human beings, begins, in some cases, at a very early age and oftentimes, leads to an academic career in research. Agustín shares his story:

From a very young age, my mother used to often take my brother and me to his laboratory and we, at least I, in those instances, were constantly surrounded by a typical laboratory of chemistry, a lot of glassware, flasks, pipettes, test tubes, test tubes containing different colors, bacterial cultures, etc. I think that this is what has awakening my curiosity very quickly.

Many academics like and are passionate about working with the laboratory tools and the variety of instruments necessary for experiments: "I like working with teams. I like to teach techniques" (Nicolás).

Antonia is one of the first tenured professors of the Department, who says: "I like laboratories, I like research ... I think I have about 75 publications. I am 63 years old and I would like to reach 100, but it seems that I will not be able to do so ", highlighting how publications are the achievements that reach the public sphere to make known development and progress.

María José comments: "if you stop what you are doing in the laboratory because 'it is 08:00 and I have to leave', you can lose all the work of one day"; this implies constant care from researchers. This treatment should not only consider the knowledge that scientists (men and women) learn from textbooks and reference texts, but experience is also an essential factor especially in laboratories, because the notion of having a support network for the care of the experiments is essential to achieving results. According to Jorge, there is a saying that reminds them of the foregoing: "There is a phrase of a chemist that says that if a reaction does work it is because of your hand [...] at the time of adding something, or sometimes influencing the agitation of the solution, if it is very fast or if it is very slow, that is to say there are certain things that one acquires with the experience".

Consequently, the support and collaboration networks generated between human beings and non-humans are made visible as a special case in the context of the laboratory (Kreimer, 1999, Salomon, 2008, Latour, 2013).

On the other hand, in some cases, the fact of completing the doctoral, postdoctoral thesis or a book has a great impact on scientists since they have put so many efforts and care

in reaching the final goal. They described these events in their life as highly emotional and full of passion. These achievements represent great satisfaction; it is something transcendental, it is like having a child (a comparison made by one of the interviewees), that one must care for for many years and invest enough time to see the results.

Javier, a tenured professor and an external researcher at the university, comments: “I think that my role as a professor has had some significance, and that for me it is very beautiful. I have worked with people for people. Work enough as to write a book”. This product is so valuable because it can also be compared to the notion of transcendence to a profound legacy similar to how several academics described the feeling of being fathers, mothers or parents.

Teaching for academics is the counterpart of a laboratory that entails several responsibilities, which, in turn, requires a lot of preparation time. Cecilia, who has been teaching for several years and is passionate about it, says: that “during the day with classes, tests, committees, then, with time, one picks up a pipette less and less”.

Francisco also agrees with the foregoing, and he makes the following comment about research: “I devoted a lot to it, but of course, I had to prepare the classes, give the classes, attend students”. Teaching is framed within the responsibilities of the position, and the problem arises when the time is used to prepare classes and correct papers is greater than the hours spent working at the office.

Class preparation is time consuming and especially if it is the first time that the academic (male or female) has to give classes. Jorge, an assistant professor at the university, has been teaching for a short time, and has been teaching most of the time. He comments: “I spend most of the day teaching”. He also comments that the longer he will be giving classes; less time he will be spending on preparing them.

Francisco, another tenured professor, remembers that at the time when he started working at the university, his children were young, and his routine “on Saturdays and Sundays, was sometimes to prepare classes; but while he was doing so, he was with the kids”. Pedro agrees with Francisco when he says: “I can be with my children and be thinking about something else, and deep down I am working. It is impossible not to think”.

To remain without thinking about work at home was his real challenge, since a research requires time to reflect and construct. However, this is not the only thing that requires time, doing a good job at preparing classes and taking care of the children also takes up one’s time. This is one of the situations of contrast and comparison, among many others that by extension it is not possible to deal with in this article (Ortiz, 2015; 2017).

Conclusions

From the life stories of academics (men and women), in broad strokes, we can see two major areas of tension (at least in regard to this article): certain types of academics differ from others in regard to the relation between their career, their family, personal and

couple life. First, women, unlike men, manage and organize support networks around the care that the family life requires. This promotes the use of the strength of family ties, in which members of the family can cooperate with providing the care needed. Second, academics that have newborn children (especially in early childhood) experience more tension in their daily lives, more often having to do with their personal and couple life.

We can see how the family life, the academic career and the care management (delivered and received) overlap and how the levels of tension differ according to the stage at which each person is. Women show a higher level of dedication to others, while men differ among them (there are cases similar to those of women and others where men show a much lower level of care provision towards family and academia).

Besides this, care also varies according to the family structure recognized by the person interviewed. When there is a greater number of members in a family, and these are very close to the person, then the demand for her/his care would be greater, hence, more time is spent on those tasks. Lastly, care is different depending on the support networks available to each of the interviewees and their structure (greater presence of the female gender in child-rearing, for example).

In summary, we see how care is a variable that transits and is marked along the academic careers given the context studied; however, it is most likely to also mark other spaces. This way we have seen the distribution of care between men and women scientists at different moments of their careers and family lives.

Before the realization of the field of research, we had considered the incorporation of the concept of care only at family level; however, along the research the need to involve the processes of relationship in conjunction with non-human beings was felt, especially those present in the laboratory. The consideration of care between human and non-human beings represents an interesting discussion to follow, both on the limits that we can define on a concept and its applications in other areas of society.

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ⁱ Specifically it comes from the thesis already approved by the author to obtain the degree of magister in Sociology of the P. Universidad Católica de Chile.

ⁱⁱ The quotations that are in quotes in the "results" section correspond to textual quotations from the different people interviewed.

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