

Nuova Secondaria Ricerca

6

febbraio 2016

ANDREA POTESIO (*Università di Bergamo*)

Italy's Cultural Resistance to Non-university Higher Education

ROSSELLA RESI (*Università di Verona*)

Laboratorio di sottotitolaggio per il triennio. Una proposta didattica motivante in grado di coniugare mediazione linguistica, nuove tecnologie e materiale audiovisivo

FRANCESCA MARTINELLI (*Dottoranda, Università di Bergamo*)

Cooperare, punto di partenza e sfida per la pedagogia francese

EMANUELA ZAPPELLA (*Università di Bergamo*)

La rete sociale per le persone con disabilità: il caso della città di Bergamo

EDITRICE
LA SCUOLA

Italy's Cultural Resistance to Non-university Higher Education

Andrea Potestio

L'intenzione di questo articolo è indagare le ragioni che hanno prodotto le resistenze culturali e ideologiche che, in particolare nella tradizione italiana, hanno reso difficile la piena diffusione di percorsi educativi di alta formazione non accademici basati sul principio pedagogico dell'alternanza formativa, come i dottorati industriali e l'apprendistato di ricerca.

The aim of this paper is to analyze the reasons that caused the cultural and ideological resistances, particularly in Italy, to the spread of non-university Higher Education based on the pedagogical principle of alternation between school and work, like industrial PhDs and apprenticeships for research purposes.

Affording a shared definition of “higher education” is a challenging task. Certainly, it is not possible to regard higher education as the final stage of one's development and growth, i.e. the time that marks the end of the educational process. This holds particularly true today that our society forcefully reasserts the importance of lifelong learning¹. The expression “higher education” brings to mind the idea of pursuing advanced studies to fulfil a two-fold objective: gaining full mastery of methodologies and concepts in certain subjects or a professional field on the one hand, and enabling those who put them into practice to improve their knowledge of these disciplines, on the other hand.

In the Western tradition, higher education encompasses tertiary education and training.

It therefore differs from secondary education, as “it aims to move beyond the institutional dimension, irrespective of the field, the subject and the method concerned, to provide innovative knowledge and to assign tasks resulting from original research, although in a compulsory and time-limited fashion”².

Originality and the tendency to produce something new characterise higher education. Evidently, individuals with this educational level are not necessarily required to formulate innovative theories or methodological approaches, nor to engage in tasks to question traditional and firmly-established paradigms. What is asked of them is a propensity to put forward plans and methodologies that can modify institutional settings, even if this is done in a sketchy and non-systematic way. For this reason, higher education programmes should not only present and describe existing reality. Instead, they should be able to lay down the conditions for promoting methodologies, strate-

gies, research and action to revert established paradigms without limitations and irrespective of the field or the subject under investigation. In this connection, higher education programmes are tasked with developing new forms of awareness, whether theoretical, practical, abstract or professional, without creating any hierarchy between academic research and that related to the world of work and production.

There exist two main theoretical models that have led to the establishment and the implementation of higher education courses. The first is termed “differentiated” and gives a high profile to personal aspirations either in cultural or professional terms. This model requires the diversification of educational institutions, which should feature a higher degree of organisational and functional autonomy. The second model is labelled “uniform”, as being characterised by a lack of diversification in the teaching approach. In other words, and despite taking account of individual aspects, this second model allows students to achieve the same results.

Generally speaking, there is only one institution that provides this type of higher education courses, the offices of which are uniformly disseminated at the national level. This way, all citizens in a given country can equally access the same education programmes, which feature a cen-

1. On these topics, see M.L. De Natale, *Educazione degli adulti*, La Scuola, Brescia 2001; Id. (a cura di), *Adulti in cerca di formazione. Proposte di pedagogia familiare*, Vita e Pensiero, Milano 2001; S. Cortellazzi (ed.), *La formazione continua. Culture, norme, organizzazione*, Franco Angeli, Milano 2007.

2. G. Bertagna, *Per una pluralità di soggetti nella formazione superiore*, in G. Bertagna - V. Cappelletti (eds.), *L'Università e la sua riforma*, Studium, Roma 2012, p. 112.

tralised management system although teaching autonomy is preserved.

This paper does not intend to afford a comparison between the two models. However, it might be useful to point out that Germany and the Anglo-Saxon countries have given priority to the first model, endorsing the creation of bodies alongside traditional universities, which offer higher education courses for the provision of professional skills. Conversely, and due to historical and cultural reasons, Italy has implemented the second model³. What clearly emerges as a distinctive trait of the Italian education system is the central, and almost exclusive, role of universities in the provision⁴ of higher education.

In the twentieth century, the provisions enforced in the last decade of the fascist regime⁵ and the reforms put in place after the establishment of democracy in the 80s⁶ and the 90s⁷ featured policy strategies and other regulations reinforcing the following principle: “universities were the institutions in charge of educating and training about practically everything (research, patents, preparation for the pursuit of professions, postgraduate courses, lifelong learning, the creation of spin-offs, the provision of local services and so forth). Nothing could be conceived as being taught outside them. Every single aspect of higher education was covered and discussed at the universities”⁸. In view of the above, this brief article takes the view that acknowledging universities as the only institutions in charge of running higher education programmes has negatively affected the processes discussed above and contributed to widening the gulf between education and employment. This gap has come to be one of the most serious issues in the Italian labour market and the most likely cause of the extremely high youth unemployment rates reported in the country in the last decades.

In this connection, the following questions arise: which institutions can be tasked with working with universities on the provision of higher education courses? Or better yet, which bodies can offer these courses on an autonomous basis? An immediate answer to these questions is businesses, industry and the labour market, more generally. With one of the most contentious issues of the current Italian labour market being the separation between school and work, one solution to deal with it could be that of bridging this gap through further cooperation between these two dimensions, particularly in the planning of higher education programmes.

However, the issue at hand is more complicated than it seems and the solution suggested above fails to explain the theoretical reasons of this separation and why universities are the main, if not the only, institutions tasked with providing higher education and training. In particu-

lar in Italy, this state of affairs also gives rise to some resistance to the full development of work-related learning, which includes teaching workshops, traineeships, the alternation between school and work and apprenticeships.

Italy's Cultural Resistance to Non-University Higher Education

In one of his recent essays⁹, Bertagna argues that there are three types of “unconscious bias” which explain Italy's cultural resistance to non-university higher education, and which hamper the effective reform of the national education system and labour market. The interweaving of these three elements has caused the consolidation of the “uniform model” discussed above, marking the ongoing failure of the training practices to promote the educational value of work and the idea that traditional and work-related learning stand on the same footing. Here is a cursory analysis of these three forms of “unconscious bias”.

The expression “Those who work do not study and those who study do not work” best epitomises the first prejudice, as in this sentence education and work are two competing dimensions that fail to interact with one another. Education is perceived as more noble than work within society, as it is entrusted with training individuals and enabling them to fulfil their potential and aspirations. School is the site for *otium* where, while receiving education, human beings can carry forward further activities, develop their own rationality and manifest their true nature. This process ends at university, where young people complete their studies. The inference is that work is perceived as an utterly different activity that is unrelated to education and intended for those who did not complete their studies, or for those who have completed compulsory schooling but are not ready to enter the labour market.

3. A review of the theoretical paradigms of the Italian university system is provided in M. Moretti, I. Porciani, *La creazione del sistema universitario nella nuova Italia*, in G.P. Brizzi - P. Del Negro - A. Romano (eds.), *Storia dell'università in Italia*, Sicania, Messina 2007, vol. I, pp. 323-379.

4. One peculiarity of the Italian education system is that one can move to higher education after 13 years of schooling. This is an exception, since in the rest of Europe students can enter higher education programmes after undertaking 11 or 12 years of schooling.

5. Besides instilling the fascist ideology and rhetoric at school, the provisions put in place by the then Ministers of Education De Vecchi (1936) and Bottai (1938) contributed to the reduction of teaching autonomy and the establishment of a centralised higher education system marked by many bureaucratic constraints.

6. See for instance Presidential Decree No. 382 of July 1980, which entrusted the Ministry with designing plans to develop higher education.

7. The trend to conceive universities as the institutions that have to train about everything culminated in the passing of the 1999 Berlinguer-Zecchino Reform, which transformed into universities 23 academies of fine arts and 83 conservatories.

8. G. Bertagna, *Per una pluralità di soggetti nella formazione superiore*, cit., p. 133.

9. Id., *Lavoro scuola apprendistato: idee per un rilancio dell'istruzione e della formazione*, «Prospettiva EP», 3 (Settembre-Dicembre 2013), pp. 24-26.

The second prejudice originates from the previous one and is based on the assumption that “not only is school an alternative to work, but the former should logically and compulsorily come before the latter”¹⁰. Education should be given precedence as a fruitful and useful experience for young people. Work should be performed later on – that is at the end of one’s growth and development – but this hampers the opportunity to study and become better individuals in this second stage of life.

The third form of unconscious bias mostly explains Italy’s unwillingness to modernise and is founded on the idea that stability of employment – that can be achieved through the conclusion of an open-ended employment contract – represents the ideal employment status, particularly when one performs the same duties for the same employer until reaching retirement.

As is easily noticeable, all these forms of “unconscious bias” contribute to devaluating the idea of work from a theoretical standpoint. In other words, they share the assumption that work, manual labour or a trade do not enable one to manifest their full potential. On the contrary, the world of work features provisions and rules through which individuals are passively exploited.

Naturally, this reasoning does not apply to all occupations, but to most of them. Exceptions to this assumption include creative and artistic work and those jobs with high levels of social recognition. Conversely, manual work and industry-related jobs (which include labourers, artisans, and farmers) hinder the development of one’s inclinations and freedom and therefore are regarded as tasks of a lower quality that should be carried out by those lacking the individual characteristics to perform others.

This last prejudice is constant in the theories on the relationship between education and work put forward in the twentieth century and fuels today’s widespread feelings of resistance to the creation of programmes that promote the educational value of work, especially manual labour. On this point, Bruni takes the view that “a well-established cultural practice is that of considering manual work as having less dignity as intellectual work, something that is suitable for servants or even for slaves [...]. Accordingly, a clever child is not sent to a vocational school by his family, and if this happens it is done unwillingly, as arts high schools are a worthier choice for human intelligence [...]. The idea that manual work is not as decent, pure and respectable as the intellectual one is deep-seated and is clear in remuneration”¹¹. The cultural practice mentioned by Bruni is rooted in the mentality of our society, families, in the information disseminated by the media and in the educational circles, producing many negative consequences.

The first consequence is that manual work is played down and disregarded in educational processes. Many young people complete their studies without gaining any work experience and without being engaged in manual activities in real work environments. Therefore, they are not prepared to perform any specific duty, so they are frustrated and disoriented as they perceive the gap between the studies they have pursued and the task they are required to fulfil.

The second effect stems from the misconception that the best form of education is the one consisting of theoretical teaching and study using books. This prejudice has created hierarchies especially in secondary and higher education. So for instance, arts high schools (*licei*) are regarded as the most prestigious institutions and are mainly attended by outstanding students, since they prime students to access the best professions; technical schools follow after, being the first choice for students with sufficient or fairly good learning abilities; the last resort is public vocational schools and vocational training courses, more generally. They are run by regional authorities and are the main option for mediocre students who have faced difficulties in their previous years of school.

The third consequence arises out of the second one and refers to the devaluation of young people with practical competence, most notably those who are able to perform manual work and make use of technologies.

Only rarely does school promote students’ practical skills and manual dexterity in the first years of education. Frequently, those who enrolled in vocational schools are students who have previously faced difficulties or failures at *licei*. Moreover, the teaching in vocational schools is not dissimilar to that offered in arts high schools and consists of traditional theoretical lessons and face-to-face learning. They are usually supplemented by workshops and traineeships that, sadly, are unrelated to theoretical learning¹². Through this, the educational value of work remains unexploited, and so does the opportunity to take manual and practical work as a starting point to develop theoretical learning. Downplaying the role of manual work and the

10. *Ibi*, p. 26.

11. L. Bruni, *Fondati sul lavoro*, Vita e Pensiero, Milano 2014, pp. 64-65.

12. Sandrone points out that practising what has been learnt in a workshop is not sufficient to realise more practical forms of teaching. Rather, this should be achieved through “a methodology that is common to both general and specialist subjects, that is instrumental to the coherent development of a student’s personal skills through the use of scientific knowledge in a given educational pathway” (G. Sandrone, *Didattica di laboratorio o didattica laboratoriale? Due strategie, due metodologie*, in G. Bertagna (ed.), *Fare Laboratorio. Scenari culturali ed esperienze di ricerca nelle scuole del secondo ciclo*, La Scuola, Brescia 2012, p. 185).

consequences that this entails can be seen as creating major obstacles to all the attempts to promote work-related learning and vocational education and training. This resistance, which is widespread in our society, seems to stand in contradiction with a fundamental teaching principle developed in the Western tradition: the educational value of work in the achievement of human fullness.

Significantly, in 1700 Rousseau posited: “turn all his [the child] attention at first towards industry and the mechanical arts which make men useful to one another. While you take him from one workshop to another, let him try his hand at every trade you show him, and do not let him leave it till he has thoroughly learnt why everything is done, or at least everything that has attracted his attention. With this aim you should take a share in his work and set him an example. Be yourself the apprentice that he may become a master; you may expect him to learn more in one hour's work than he would retain after a whole day's explanation”¹³.

The educational value of work is an intrinsic one. Young students can engage in practical activities on an experimental basis allowing them to gain technical, theoretical and ethical knowledge through practice. Observation in work environments and practical experience constitute alternative ways of learning. Put it differently, students' manual dexterity, commitment and effort are the departure points to develop thorough and harmonised knowledge of practical and theoretical aspects.

In the scene described by Rousseau, the principal becomes a master and leads the student by example through work and action. He is not just a teacher that provides notions and skills in class, but a *gouverneur* that acts as a guide for the student and, mindful of his responsibilities as an educator, works with them and shares the problems arising from practical experience and learning, transforming his body, mind and actions into a model.

Rousseau forcefully reasserts the importance of practical experience and the engagement of the body and its senses in the learning process. At a certain stage of students' psychological and physical growth¹⁴, work becomes a necessary aspect, because it is by building on what is useful and interesting that they can understand the theoretical foundations of certain practices and actions. This way, education can promote one's potential in a coherent and harmonised way.

Although from different epistemological perspectives, a number of pedagogical scholars in the twentieth century, among others Dewey, Kerschensteiner, Hessen, and Agazzi¹⁵ strongly reaffirmed the relevance of “comprehensive” education and work that should be seen as part of one's learning experience.

However, their theories have had little effect on the systems of education and vocational training, especially if Italy is concerned. Work has been largely disregarded at school and the “school-to-work alternation” pedagogical principle – which allows the development of many aspects of the human being (theoretical and practical, educational and employment-related) – has failed to take root¹⁶. Therefore, which consequences bring about this exclusion on higher education? Which kinds of cultural resistance act on the education system and tertiary education, more generally?

Non-university Higher Education Programmes

Higher education and training programmes in Italy are for the most part offered by universities, while a marginal role is played by certain non-academic institutions, such as technical high schools (*Its*) and other kinds of vocational schools (*Ifts*) running advanced-level apprenticeships for research purposes.

The incredibly high unemployment rates recorded in the last few years, which are set to further increase particularly among young people¹⁷, reflect the serious economic crisis faced by Western countries as well as the shortcomings of higher education programmes, which lack diversification.

Tellingly, 46% of those enrolled at Italian universities need more time than required to graduate, 1 out of 6 students are unable to pass more than one exam per year and

13. J.-J. Rousseau, *Emilio o dell'educazione*, (1762) Mondadori, Milano 1997, p. 239.

14. In Book III of his *Emile*, Rousseau argues that 12 is the best age for a child to be engaged in carpentry.

15. See for instance: G. Kerschensteiner, *Il concetto della scuola di lavoro* [1911], Giunti-Marzocco, Firenze 1959; J. Dewey, *Democrazia e educazione* [1916], La Nuova Italia, Firenze 1992; S. Hessen, *Struttura e contenuto della scuola moderna* [1939], Armando, Roma 1969; A. Agazzi, *Il lavoro nella pedagogia e nella scuola*, La Scuola, Brescia 1958.

16. The school-to-work alternation is a teaching and learning approach that stresses the ongoing interplay between theoretical (i.e. theories and ethics) and practical knowledge (e.g. observation, practice, production, work). Being a pedagogical principle, the school-to-work alternation consists of a series of fundamental elements which should be properly balanced against one another: training workshops, internships, vocational training and the actual tasks to be performed. On this topic, see G. Bertagna (ed.), *Alternanza scuola lavoro. Ipotesi, modelli, strumenti dopo la riforma Moratti*, Franco Angeli, Milano 2003; G. Bocca, *Scuola Lavoro alternanza e formazione: utopia o strategia?*, R. Di Nubila, *Oltre l'aula: la formazione continua nell'alternanza, negli stage, nelle imprese, nelle istituzioni*, Cedam, Padova 2004; C. Landry, *La formation en alternance. État des pratiques et des recherches*, Presses de l'Université du Québec, Québec 2005.

17. According to Istat, in July 2014 there were 3,220,000 unemployed people in Italy, that is a 2.2% increase compared to June 2014 and a 4.6% increase if the previous year (2013) is considered. The overall unemployment rate in our country is equal to 12.6%, while more worrying statistics concern unemployment among 15- to 24-year-olds (42.9%). Istat, *Report. Occupati e disoccupati*, 29 Agosto 2014, pp. 1-18 (<http://www.istat.it/it/archivio/130452>).

1 in 5 do not graduate¹⁸. Leaving aside the high number of students who take longer than expected to graduate, what is alarming are the statistics pointing to an increasingly wide gap between tertiary education and training and the world of work.

According to the 2011 survey by the Italian National Institute of Statistics (Istat), *I laureati e il lavoro*¹⁹, the percentage of those in employment after four years from the graduating year (2007) was 71.5%. This rate drops to 58.2% if those with a further two-year degree and their employment situation after one year from graduation is considered. Even lower is the share of those with unstable working conditions. Four years after graduation, 49.3% of those with a three-year degree have concluded an open-ended employment contract, while only 47% of those with a 5-year degree are offered stable employment. The struggle faced by the economy and industry in the last decade and the disheartening statistics regarding employment and educational levels are further confirmation that the schooling system needs reviewing, especially as far as higher education goes. However, the initiatives promoted by universities from within are not sufficient to achieve an effective change of paradigm, although they are intended to give these institutions more autonomy and transparency, while enabling them to be awarded merit and become aware of cultural and productive needs locally. Conceived as the only providers of education within a centralized system, universities failed to ensure equal access to education and to offer real training and education opportunities to all the citizens of democratic societies. What is worse, this model has widened economic and social disparities. This can be seen in the increasing struggle to find employment on behalf of graduates and that many of them do jobs for which they are overqualified²⁰. Therefore, a need arises to replace this model with the “differentiated” one described above that is already in place in other countries²¹.

In democratic societies, universities play a fundamental role, because while interacting with external realities, they promote research on immediate and useful knowledge and theories as well as on laws and principles. Equally important are those institutions focusing on a “hands-on approach” not to be intended as repetitive and mechanical acts but as tasks allowing workers to set their objectives, and to show freedom and autonomy in manufacturing products and interacting with others. Implementing a differentiated and pluralistic model builds on enhanced non-university education programmes, which have yet not enjoyed the same prestige as traditional ones and have played a marginal role.

This change is possible if, like many contemporary and

modern scholars, we accept the following pedagogical principle: “No task exists that is not full of sociality and humanistic, scientific and technological culture. Practical and theoretical knowledge is required to perform tasks at adequate levels and to allow the creation of links between two concrete situations”²².

Work is a treasure trove of theoretical principles, operational techniques and actions linked to its main tasks, be they expressed or implied. For this reason, work can be seen as a learning and training experience. If properly led by a master, the young apprentice can learn how to perform a task by observing and analyzing the most technical aspects and principles. They can also make use of a trial-and-error approach to develop manual dexterity allowing one to perform work and subsequently reflect on what has been done, to gain skills and carry them out more adequately in the future. If this perspective is adopted, non-university education and training can take practical learning as a starting point to offer ethical and theoretical knowledge, by applying the “school-to-work alternation” approach that promotes the full development of someone’s potential.

Once integrated and relieved of bureaucratic burdens and legal contradictions, technical high schools²³, and vocational schools²⁴ more generally, alongside advanced-level

18. Istat, *Annuario statistico 2013*, pp. 188-192.

19. Istat, *Report. I laureati e il lavoro*, 8 Giugno 2012, pp. 1-24 (<http://www.istat.it/it/archivio/64482>). Cf. Istat, *Report. I laureati e il lavoro*, 8 Giugno 2012, pp. 1-24 (<http://www.istat.it/it/archivio/64482>). The survey was carried out in 2011 on graduates with a three-year degree and a five-year degree in 2007. Unemployment rates for these groups have increased if compared to 2004, when the same study was conducted.

20. A discussion concerning the shortcomings of the education and training systems currently in place in Italy is provided in R. Simone, *L'università dei tre tradimenti. Un dossier ancora aperto*, Laterza, Bari 2000; A. Monti, *Indagine sul declino dell'università italiana*, Gangemi, Roma 2007; A. Graziosi, *L'università per tutti. Riforme e crisi del sistema universitario italiano*, Il Mulino, Bologna 2010.

21. An in-depth analysis of the systems of higher education in other countries is provided in A. Cammelli (ed.), *La transizione all'università al lavoro in Europa e in Italia*, Il Mulino, Bologna 2005; D. Jansen, *Governance and performance in the German*, Springer, London-NEW York 2010; C. Musselin, *La longue marche des universités françaises*, PUF, Paris 2001.

22. G. Bertagna, *Per una pluralità di soggetti nella formazione superiore*, cit., p. 153. Wenger maintains that “so called manual work is never devoid of the “mental” component. Likewise, intellectual work always entails some practical experience” (E. Wenger, *Comunità di pratica: apprendimento, significato, identità* [1998], Cortina, Milano 2006, p. 48).

23. In 1970 the Italian government created seven technical schools providing higher technical education on an experimental basis. Yet these institutions failed to develop properly, due to bureaucratic constraints and because of competence issues arising between the State and the Regions concerning vocational training. In 2008, technical schools were created pursuant to Act No. 40 of 2007 to provide technical knowledge at a higher level in some key industries (among others energy efficiency, sustainable mobility, new technology to promote Italian products and the arts, information and communication technologies).

24. Vocational schools (Ifis) were created by the Minister of Education, Berlinguer, by means of Act 144/1999. They are promoted by the Regions, public schools and universities and provide work-related training in line with local needs.

and research-based apprenticeships can set the point of departure to devise educational schemes which are on an equal footing with traditional ones and promote effective pluralism. In turn, this should enable young people at this educational stage to select the most suitable education programme in a free and responsible fashion, taking into consideration their potential, interests and wishes.

Through work-related learning, technical and vocational schools can improve young people's manual dexterity and their ability to physically manufacture items, also through programmes involving the alternation between school and work²⁵. Workshops, traineeships and apprenticeships are also intended to plan education that is product-based, bearing in mind that no productive activity can be defined as such without underlying ideas and principles that make it possible to perform it.

Consequently, the theoretical notions taught in class and at workshops can still be an important feature of the educational process. The only difference with the past is that these classes will be more related to and integrated with practical experience, so that young people will apply theory and put into practice what has been learnt.

In this perspective, apprenticeships might turn into a real opportunity to promote work as a form of training by alternating school and work. Significantly, the 2011 Consolidated Text defines this working scheme as "an open-ended employment contract intended to promote young people's training and employment"²⁶. Thus the main purpose of apprenticeships is not limited to the provision of technical and practical skills to enter employment. Their aim is also that of training individuals through letting them become familiar with the cultural and educational contents of the work performed, enabling them to realise their potential. Among the apprenticeship schemes provided by the law²⁷, the advanced-level apprenticeship for research purposes offers 18- to 29-year-olds the opportunity to earn an academic degree – including PhDs²⁸ – to obtain a specialization in technology-related studies and to undertake training to pursue a number of professions.

This type of apprenticeship should be promoted to allow the diversification of higher education programmes. This would be possible by promoting the educational content of a job and by enabling non-formal dialogue between employers and employees and universities to plan and organize an effective alternation between school and work.

Andrea Potestio
Università di Bergamo

25. The alternation of school and work is part of the wider principle of work-related learning and was introduced by Enabling Act No. 53/2003 and regulated by Legislative Decree No. 77 of 15 April 2005 as a programme to obtain secondary education qualifications. Specifically, it allows young people who are 15 and older to alternate periods of study and training under the supervision of a tutor.

26. Legislative Decree No. 167, The *Consolidated Text on Apprenticeships*, Art. 1, 14 September 2011. This provision reasserts the educational value of apprenticeships, which cannot only be regarded as an employment contract concluded to engage in profitable and practical activities. In this sense, the Decree follows on from and fulfils the aim of the Biagi Law, the Moratti Law and, more recently, of Act No. 182 of 9 September 2010 (so called "Collegato Lavoro"). On this topic, see M. Tiraboschi (ed.), *Il Testo unico dell'apprendistato e le nuove regole sui tirocini*, Giuffrè Editore, Milano 2011; G. Bertagna, *Lavoro e formazione dei giovani*, La scuola, Brescia 2011, pp. 53-89.

27. Legislative Decree No. 167/2011 makes provision for three types of apprenticeship contracts: apprenticeship contracts for exercising the right and duty of education and training, that can be stipulated with those between the age of 15 and 18; vocational apprenticeship contracts (Article 49) for people between 18-29 years old who want to learn a job and its related aspects (theoretical, technical, ethical and social notions); advanced-level apprenticeship contracts for research purposes can be concluded with young people between 18-29 years old who want to obtain a high school diploma, a university degree or undertake training to access certain professions.

28. Recently, Ministerial Decree of 8 February 2013 has introduced the opportunity to engage in PhD programmes created "in collaboration with employers" or to pursue "Industrial PhDs". Although the distinction between these two types of PhD programmes is not clear, lawmakers seem to have finally acknowledged that cooperation between academia and businesses can also benefit this qualification, therefore admitting the educational value of work in higher education. On this topic, see M. Ori - M. Tiraboschi, *Via ai dottorati industriali, ma l'Italia non è pronta*, Bollettino Adapt, Adapt-Press, Modena, pp. 363-366; U. Margiotta, *Vie della formazione dottorale: ricerca accademica e alta professionalizzazione*, «Pedagogia oggi», 1 (2004), pp. 44-63.