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Education and Training Regimes within the Swiss Vocational Education and Training System. A Comparison of the Cantons of Geneva, Ticino, and Zurich in the Context of Educational Expansion

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Abstract: Swiss Vocational Education and Training (VET) is based on national legislation which was introduced in the 1930s and renewed in the 1960s (as well as in the 1970s and in 2002). At first, the goal of the national VET legislation was to further Vocational Education and Training in order to support small and medium enterprises; however, later, it also included industry and services and has more recently grown to support the learners themselves. The 1963 national legislation and the following implementation acts in the cantons were decisive in shaping the Swiss VET system from a historical and comparative perspective. We argue that still today we do not have a unified, national system of education, but rather e cantonal modes of education and also of VET. However, the cantonal actors—with a specific focus on Ticino, Geneva, and Zurich—argue with similar justifications, when it comes to the reform of VET. Nevertheless, within this national legal framework, the cantons adopt rather different solutions. The result is that different (language specific) regional pathways of VET were established, based on various education and training regimes. In this research paper, we aim to concentrate on the years from 1950 to 1970, a period that turns out to be particularly significant for the development of Swiss VET. We focus our research on the introduction of the Vocational Training Act in 1963 and look in detail at the extent to which the cantons developed their corresponding implementation acts from the perspectives of different motives and logics.

Keywords: Swiss (vocational) education system; development of VET; cantonal differences; cantonal regimes; comparing analysis; regional VET policies



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1. Introduction

Comparing different cantonal regimes of education makes sense, as Marc-Antoine Jullien de Paris stated in his published work in 1817, “Esquisse d’un ouvrage sur l’éducation comparée”, which in the long subtitle also included the—during his era the 22—Swiss cantons to be explored of which there. He justified his attempt to found comparative education research with the aim of improving education and educational science itself [1,2]. The Swiss cantons, in particular, with their differences in climate, language, religion, political organizations and governments, offer in his view a multitude of educational institutions and systems, which are worth observing, studying and analyzing [1] (pp. 15–16).

The following paper is not an application of his recommendations in detail, which aimed at replicating a comparison of the Swiss cantonal education systems in a second step at European level. The goal of producing tables that would enable systematic comparisons was never realized by him. Nevertheless, we take the idea seriously, that the awareness of cantonal diversity helps to identify drivers for reforms.

This will be shown in the field of VET in the period from 1950 to 1970. The case of VET is the focus of this article. It is of interest, as it implies two logics: federal state legislation on the one hand, which is aimed at standardizing and unifying diverse programs especially

for economic purposes and the cantonal (regional) education systems, which stress the specificities and needs of local providers.

Furthermore, we argue that education systems, but also VET, are based on justifications beyond economic arguments. In the course of history, diverse justifications emerged with the aim of training and educating young people for the world of work, but also for society. The overall consensus is to further vocational education, which is stressed in the national discourse and in the national legislation of VET in Switzerland. This consensus included both in the past and today—with the exception of the conflict around the 1978 VET legislation, when young unionists, left-wing parties and student organizations were in opposition—professional organizations, unions and parties from the left to the right [3]. To guarantee a high quality of VET, this is nowadays even part of the Swiss Constitution. As we will demonstrate on cantonal levels, this goal is often voiced differently and has led to different regimes of (vocational) education.

The article takes three cantons as a *pars pro toto*: Geneva for the French-speaking part of Switzerland, Ticino for the Italian-speaking region and Zurich for the Germanic mode of organizing education. The choice of these three cantons is based on the fact, that Zurich is an important provider of education and VET for the German-speaking part of Switzerland. Meanwhile, Geneva, as another important canton and center for the French-speaking region, has a different perspective on the provision of education. Ticino is the only Italian-speaking canton and for this reason is included in this comparison.

As demonstrated in a recently published comparative country study of VET, the focus is on its “cultural” foundations, meaning that not only economic arguments counted in terms of reforming VET, but also political, social, and pedagogical concerns [4]. When reforming and implementing VET on a cantonal level, the actors have to take national legislation relating to vocational education into account, as well as their own interests, in relation to an adapted regulation.

The overall question of this contribution is to explore the paradox as to why the VET system in Switzerland is seen as part of a national system, although there are huge cantonal differences. The cantonal diversity itself is a result of path-dependent Educational and Training Regimes (ETR), which evolved in regional, i.e., local contexts. Through a descriptive and historically-based perspective, this paper highlights the clear differences and tries to identify drivers for these cantonal developments. The period 1950–1970 is one of decisive meaning, as the role of VET was at stake in relation to the rise of academically-oriented baccalaureate schools.

The argumentation of this paper is organized as follows: in Section 2, the comparative approach, theoretical references and the methods are presented. In Section 3 the national developments related to VET are described in order to frame the following specific foci, such as the rise of technical education and its further effects (Section 4) and the impact of these debates on the apprenticeships in the three cantons (Section 5), which through national legislation also led to cantonal implementations and varied policies (Section 6). The debates around these implementations themselves evoked justifications (Section 7), which strengthened the various approaches towards ETR (Section 8). The last Section (Section 9) goes beyond the historical setting in the 1960s and 1970s and discusses further trends, which relate to the topical discourse today.

2. Comparative Approach, Theoretical References, and Methods

Our contribution focuses on a comparative analysis of the three aforementioned cantons (Zurich, Geneva, and Ticino) in order to identify the underlying determinants (at political, economic, social, and pedagogical levels) of differentiated participation in dual apprenticeship, or in full-time school-based VET programs, which are profiled against a general education pathway, mainly based on baccalaureate schools.

The article refers to Eric Verdier's categories, developed in his international comparative work, which discern public "regimes of action", i.e., ETR. ETR are an ensemble of institutions (e.g., education ministries, unions, employers' organizations, chambers of commerce), agencies (schools, employment offices), and specialized actors (firms, training centers, teachers, trainers, etc.) engaged in the organization and provision of education and training. Furthermore, specific customs, rules and regulations characterize the governing and internal functioning of ETR, which also ensure a mutual coordination of stakeholders and educational institutions [5–8]. Meanwhile, two types of ETR are closely linked to the competitive "market" and the "organized market"; three others—defined as outside the market—are labeled as "professional", "academic", and "universalist" [9] (p. 152ff.). We apply this approach to the different cantonal "régimes d'action" [5,6].

In accordance with Verdier, to compare VET systems, it is important to understand the structures and explain the changes of national—and in our case—cantonal—education and training systems [8] (p. 3). ETR are understood as a combination of principles of justification, as explained by Verdier, with reference to the sociology of justice, actors' projects and interests, rules and instruments [9] (p. 4). As principles of justice in those three de-commodified systems, the (1) neo-corporatist ETR rely as a main feature on vocations, meanwhile (2) an academic regime focuses on school-based merit and a universal system seeks to compensate for initial inequalities. Thus, other key actors are in the foreground: in one case (1) companies, in other cases (2) more academic institutions or (3) communities of partners. The market regimes, on the other hand, rely in the case of the (4) market competition regimes on the effectiveness of actors representing firms or in the organized market (5) on similar actors, who stress a broader concept of quality and transparency. Private and public actors figure as key actors (4 and 5). Verdier [5] developed these categories in different articles and refined them in his comparative work, which includes education systems at all levels from secondary II schools, universities, lifelong learning concepts and VET. The main foci are Europe-wide, but also more specifically, the Mediterranean countries. The categories result from an analysis of discourses and descriptive data, which form a dominant mode of ETR. Of special interest are reform debates, as they reveal different views and solutions, which have to be justified. For this reason, Verdier's [5–8] categories also include a justification aspect, highlighted by Boltanski and Thévenot (2007) [10]. However, in this paper the justifications are not explored thoroughly in the same sense, as in several works in the tradition of the sociology of conventions, which identify different "orders of worth" [11]. We analyze—in line with Verdier—justifications insofar as they form part of a dominant ETR. The categories of ETR, derived from the analysis of documents imply an evolutionist perspective and a "heuristic comparativism" [12].

Most VET systems, at least today, result from compromises between several possible regimes, and with regard to "legitimate conventions", are supported by coalitions of public and private actors. Thus, the regimes are driven by neo-corporatist and academic regimes or neo-corporatist and organized market regimes or academic versus market regimes [8] (pp. 4–13). Changes and compromises are steady in flow and depend on reforms and implementations. Verdier favors the concept of hybridization of those regimes, based also on the circulation of good practices [13] (p. 18).

In the area of vocational education and lifelong learning, "regimes of action" navigate between corporatist and academic and universal regimes [6].

Other researchers, also in the tradition of sociology of justification apply this perspective of different regimes, which must be justified in terms of the process of reforms in the course of new regulations. Actors perceive deficits and try—e.g., in the context of new legislation—to reshape or modify the basic regime [9]. In VET, there is a tendency towards hybridity [14], so as to take different claims and logics into account, as observed also in other countries [15,16].

This is our exact approach in the following, when we consider the 1963 VET legislation at federal level [17], which had to be implemented in new cantonal legislations, as occurred in 1967 in Zurich [18], 1969 in Geneva [19], and 1971 in Ticino [20]. We first defined a stock of documents, which were related to these cantonal reform debates around cantonal legislation on VET. These documents included parliamentary commission debates but also articles in local newspapers and the publications of various stakeholders, such as employers' associations, unions and pedagogical journals in the period between 1950 and 1970.

The methodological approach is based on this analysis, which includes statistical data on upper secondary education provision in Switzerland. The legislative texts, political reports and press articles, published around the time of the national 1963 VET legislation and the cantonal implementations in relation to the development of upper secondary education in Switzerland, were the main focus of our research. Thus, we identified different categories and classified the data and documents from a justification perspective. The following questions were guiding: Do argumentations become visible? Which logic of justification underlies the argumentation? For what reasons did the arguing person or a certain arguing actor use this justification logic [10]?

In a first step, we analyzed the 1963 law and compared it to the first federal legislation of 1930 [21]. By taking a comparative perspective, we were able to identify changes in the content of the new legislation and new emphases, and thus learned about the starting point of the cantonal implementation acts.

In order to analyze our question (to what extent and for what motives do the cantons of Geneva, Zurich, and Ticino take different approaches to implementing federal legislation?), we analyzed those passages in the aforementioned text sources in which it becomes visible to what extent the cantons strive for locally adapted ideas or freedoms in the implementation of the federal legislation and exhaust a certain room for alternatives, or adopt the guidelines of the federal government unchanged. The focus of the analyses was on the reconstruction of the debates surrounding the procedures for the elaboration of cantonal regulations, which either proved to support federal legislation, or in the case of resistance, the adoption of an opposing attitude became visible. In the reconstruction, the focus was on the different motives, evaluations and decisions of the cantons, and how the set priorities in the cantonal legislation were justified.

3. The National Context: The Legislation in 1963

Within the period covered by this study, from 1950 to 1970, an apprenticeship in Switzerland could be completed in a private or public company with simultaneous attendance in a vocational school or by attending a public apprenticeship workshop, i.e., a full-time vocational school (e.g., furniture maker apprenticeship workshops or watchmaker schools which, in addition to practical training, also imparted vocational instruction) or by attending a public or private commercial school. In addition, depending on company circumstances, apprentices could also attend introductory courses (a type of supplement to a vocational school and the apprenticing company) so as to acquire basic skills. Vocational school instruction includes vocational and general subjects. At this time, certain schools also offered voluntary courses or continuing education courses for apprentices (e.g., in languages) [17] (Art 6.). The most common form was the completion of the vocational apprenticeship through the combined attendance of vocational school and professional training in the company, i.e., in the so called "dual system" [22].

The reform of VET has become increasingly urgent since the 1950s [22] (p. 36). Up to this point, vocational training was defined without reference to vocational school, and the new legislation should address the connection between these two concepts. Moreover, continuing vocational education was hardly mentioned, thus the new federal law should be much more oriented towards continuity, especially with regard to technical education. The term, "vocational training" or initial vocational education was replaced by vocational

education, which included several forms of education and training in the vocational domain.

During the period 1950–1970, fundamental changes also occurred in the education system, which affected vocational education and training. First of all, in the context of the Cold War and the competition between East and West, as well as the economic uprising and subsequently the 1968 youth revolt, education in all its forms was seen as a means to prepare the youth for their political and economic future. It was argued that education and especially technical (and vocational) education should be furthered.

Following the Sputnik shock (1957), the debate in the Western world, such as in the US, Germany and other countries was launched to invest more in education and, at first glance, in baccalaureate schools [23]. In Switzerland during the following years, the deficits of education were seen in the light of a lacking qualified workforce. The Hummler Report (1959) launched a discussion, which led to several measures within the education system [24]. Dr. Fritz Hummler, the federal delegate for labor, warned in 1955 that there was a shortage of engineers. He believed that the number of technically qualified people for the machine industry should be doubled, especially the quota of youngsters from the class of workers, farmers and small enterprises in this field, which in his eyes was much too low. Hummler also declared that female potential had been greatly undervalued. Although in this period the main focus was on developing and furthering baccalaureate schools and the extension of polytechnical universities (like the new EPFL in Lausanne), Hummler also pleaded for the progression of vocationally educated technicians [24,25].

The Hummler report complemented another discourse which was held in VET and expressed a concern that the position of VET should be fortified by furthering more apprenticeships. An apprenticeship should be seen as a competitive advantage over non-qualified persons [26]. In other words, upskilling was on the agenda and all cantons in Switzerland tried to further develop the secondary II level and also the VET domain.

4. Technical Education and Higher Technical Schools in the Cantons

In the context of the debates around the “expansion of education”, technical education was given high priority. Initially, the debates centered on securing a scientific and technical career and not opening up higher education to a broad stratum of the population. The deliberations regarding technical education and how to define the graduation of persons who had completed their courses in a higher technical school, following an apprenticeship, were an important aspect of the legislation [26]. Thus, the foundation of new higher technical schools was also suggested, in so far that further vocational education and training on a higher level should be differentiated [27]. Further vocational education was now part of the VET system and could also be subsidized by federal authorities. In contrast to graduates from technical universities, e.g., the ETH (Eidgenössische Technische Hochschule) in Zürich, Switzerland, which awarded academic engineering degrees, those who trained at technical educational institutions also had to list the title of ‘technician’ in their professional designation. The core of the expansion focused on the academic track, including baccalaureate schools (Gymnasium) and universities [28]. This debate, starting in the 1950s, also had a cantonal dimension: it was argued that few people in the canton of Lucerne, who were working at this time as engineers or technicians came from Lucerne. This shortage of qualified people should be met by founding a higher technical school [27,29]. Local firms, and specifically the export-oriented companies, strongly supported the foundation of a new higher technical school and even offered buildings for the establishment of such an institution. It was mentioned explicitly that technicians build upon their previous vocational education, and a training diploma was considered an important asset [29] (p. 136).

The concept of offering pathways to learners after completing an apprenticeship, especially to technicians, was forwarded by the national legislation and thus opened up the way to a careerization of VET. Traditionally, with the completion of an apprenticeship, the appropriate career was found. In the deliberations regarding the new legislation, “advancement opportunities” were often discussed, especially in the context of higher

technical schools. For this reason, cantonal legislation defined vocational education in a broader sense, including further vocational education, which opened up pathways into higher technical schools [30].

5. The Cantonal Developments of Apprenticeships

In the foreground of the discussions at the end of the 1950s and 1960s, was the talk concerning the mobilization of the “reserves of talent”, which aimed at founding new baccalaureate schools. Thus, in most cantons the small range of baccalaureate schools, which paved the way for university and ETH entrance, was widened. In most cantons, these schools offered new opportunities for youngsters and were designed to attract talented youth. Traditional apprenticeships were under pressure and highly gifted young boys and girls, in particular, opted for school based Secondary II programs. As stated in the journal of the vocational schoolteachers:

“Due to the strong propaganda of the academic career, the vocational schools, and with them the higher technical schools, are depopulated of manually capable and intelligent students” [29] (pp. 37, 82)

Nevertheless, from the 1950s onwards, a gradual increase in the participation rate at Secondary II level can be observed, not only in the academically-oriented programs, but also in the dual and in full-time, school-based vocational education and training. In particular, there has been an increase in the participation of women in the aforementioned pathways.

While the socio-economic conditions in the Swiss cantons were very similar during this period, it is interesting to note that the development of a participation rate within the three main education pathways (apprenticeships, full-time school-based VET and the upper secondary general education) is significantly different across the cantons. The German-speaking cantons, for example, recorded significant growth in dual VET, while in the French- and Italian-speaking cantons, the number of participants in upper secondary general education and full-time schools (including VET schools and other general schools) was rising comparatively rapidly [31].

While the picture of dual vocational education was more homogeneous throughout Switzerland until the 1940s, i.e., higher in Zurich and largely similar on a lower level in Geneva and Ticino, the following decades saw a downward trend in Ticino and Geneva, after a brief increase in the 1950s. This has manifested itself in comparatively lower participation in both cantons up to the present day, with a slight upward correction in Ticino since 1980. This contrasts with a strong upward trend in baccalaureate schools in the canton of Ticino and a continuous increase in participation in the baccalaureate schools as well as in other full-time schools (either vocational or general) in the canton of Geneva [31].

It was, therefore, understandable, that VET reformers and policy actors compared the conditions of an apprentice to a greater extent with a learner in a baccalaureate school. Especially at the end of the 1960s, the critique on the pedagogical situation of apprentices became an issue.

“Consider the strong difference between privileged middle school students and apprentices of the same age. Six to eight percent of our young people participate in high school education, they are trained intellectually, their aesthetic abilities are developed, their bodies are trained in gymnastics, and they have three to four times more vacations at their disposal than their apprentice comrades of the same age. Mother Helvetia is using two very different yardsticks here: She spends five times more on school buildings and ten times more on training per middle school student than on the stepchild apprentice” [32]

This period after the Second World War and before 1968 is undervalued in terms of the research of VET, although important shifts of meaning and justifications were decisive in the further development of VET and the education system. In light of the educational expansion in the 1960s, two developments in particular were decisive:

- The inclusion of technical education in VET legislation and VET as a basis for technical education;
- The stronger alignment of apprenticeships in the context of pedagogical tasks: VET was now viewed not just as a basis for the recruitment of a workforce, but also as educational and, therefore, part of the education system.

In the foreground was the pedagogical quality of VET. To be trained as an apprentice was no longer the final educating process, but the beginning of one's development as a first step of further and even higher education, leading to a potential career in the workplace. Thus, a careerization through VET became possible, although this was not intended as a regular pathway.

6. The Implementation of the National Law in the Cantons as a Basis for Flourishing VET

In the aftermath of the new national legislation from 1963 (and enforced in 1965) cantons elaborated their own implementation acts: 1967 in Zurich, 1969 in Geneva, and 1971 in Ticino. The main aim of all three acts was to implement the national law. This implementation evoked an assessment and an evaluation of the existing cantonal VET systems. However, the will to reform VET was not the same in all cantons. This had to be justified if changes had to be made, questioning why reforms were urgently needed or why the intervention of the canton should be kept at a lower or higher level. Geneva and Ticino, with smaller numbers of apprenticeships, expressed the intention to revalue apprenticeships and to optimize VET. Zurich, on the other hand, advocated continuity and a steady improvement of the existing VET model. However, Zurich's policy also stated that "a strong pull toward secondary schools and universities", including large numbers of talented young people migrating to baccalaureate schools, "which includes the risk of a shortage of qualified skilled workers" should be avoided. Otherwise a "washing out of the next generation of workers for industry" could occur [33].

In all cantons there is a certain tension between the federal authorities and the cantonal VET and education policy. However, Ticino and, to a greater extent, Geneva were more critical towards the VET policy on a national scale. This was related to the role of professional organizations and firms, which are much more active in the field of VET in Zurich than in Geneva. However, also in Zurich, there was a need to justify why gymnastics should be integrated into the cantonal vocational school curricula, which was at variance with the federal defaults.

In Geneva and Ticino, the cantonal offices of vocational education and training launched their own strategies for developing the VET systems further. VET was a specific case and had to be coordinated with the federal authorities. These interactions included certain tensions and the cantons had to justify their measures. Geneva, in particular, stated that the cantonal autonomy has to be safeguarded. Geneva justified its policy of building up a comprehensive education system by fostering the idea of promoting social justice [34].

Meanwhile in Zurich, the existing activities of the professional organizations and firms were approved by nearly all the actors. In Geneva, and even more so in Ticino, the cantonal offices tried to encourage the engagement of employers and professional associations in VET provision. The authorities justified their activities, due to the low rates of apprenticeships. Therefore, Zurich understood the role of the state (canton) as less interventionist than the other cantons, due to the trust and stronger presence of the professional associations' self-governance.

Insofar as the role of the VET schools is different, in Zurich, they complement the learning in firms; in Geneva and Ticino the schools, either the VET fulltime-schools or general education schools, replace the lack of training opportunities on the part of companies. Therefore, the development of schools besides apprenticeships was justified in those two cantons.

On the other hand, Zurich highlighted the proven cooperation between professional associations, schools and authorities [35]. The foreseen reforms should strengthen VET and were seen as a unique solution in order to qualify young people. The school element of VET, in particular, lay in the hands of the cantons and thus investments in school buildings and pedagogical measures could be justified and were approved by the relevant actors.

The significant difference between the cantons was, however, the aspect of the valorization of apprenticeships. Existing and newly founded baccalaureate schools in the 1960s and later in Zurich, Geneva and Ticino attracted more and more pupils. The cantonal reforms of comprehensive schools (“cycle d’orientation”) in Geneva which aimed at democratizing studies (“democratisation des études”) in order to diminish social inequalities, boosted school-based choices and strengthened the academic pathways [36] (p. 14).

As a general rule, the reputation of VET was and is different across all three cantons. Meanwhile in the canton of Zurich, VET kept a certain value, in Geneva it became a “second choice” for youngsters. However, in Ticino the valorization of VET had to be developed. An overview of the differences regarding the implementation of the cantonal laws is provided in Table 1 below.

Table 1. Main differences regarding the implementation of new cantonal VET policies (Zurich, Ticino, and Geneva) (own representation).

Canton	Zurich	Ticino	Geneva
Change or continuity of VET? Justifying reforms based on an evaluation of the existing VET systems	State of VET judged as positive, no need for greater reforms: however, in order to avoid “washing out the next generation of workers for industry”: VET should be made to appear attractive	State of VET deemed not to be particularly positive, therefore, need for reform	State of VET deemed not to be particularly positive, therefore, need for reform
Cantonal autonomy and character of VET reforms Justifying reforms by adopting/refusing/enlarging federal defaults	Keeping low profile with regard to cantonal activities, state should be in the background	Cantonal state fosters VET and economy and seeks to launch a cantonal VET policy	Cantonal state should shape the education system and establish a cantonal VET policy
Role of the professional organizations, firms in VET Justifying reforms by granting/hindering non-statist activities in favor of the local economy	Trade and entrepreneurs are the main providers of VET and require limited support and incentives by the state	State promotes engagement and participation of social partners and enterprises	State and schools are the main pillars of VET; firms are involved under a statist umbrella
Role of the schools in the context of VET Justifying reforms by keeping/enhancing pedagogical quality	Schools should play a second role, complementing company training: this is the essence of quality	Schools make up for the lack of engagement of private actors	Schools are at the center of the cantonal VET system: pedagogical quality is based on several measures
Valorization of VET Justifying reforms by valorization of non-academic pathways	Given (at the beginning of the 1960s), therefore, awareness of the value of apprenticeships	VET viewed as a second option; valorization of VET is needed	VET viewed as a second choice; valorization of non-school-based pathways is needed

The implementation acts and the foreseen reforms in the cantons have to be viewed in light of the affordance to avoid or reduce a lack of qualified work, but also to catch up with the ongoing intellectualization of work and the upcoming debate on the social status of apprentices [37].

7. Cantonal Justification for VET Reforms around the Implementation Acts

Around the cantonal implementation acts of national law from 1963, the actors justified the intended reforms with the need for a competitive economy, based on a qualified workforce, but also with considerations aiming at social equality and public recognition, in order to promote VET, especially apprenticeships. New cantonal legislations, i.e., the implementation acts, established and strengthened different regimes of action, which is highlighted in the following debates around the implementations regarding the three cantons. A common feature were the market and industrial justification: a stronger economy should be based on a sound vocational education. The training of technical staff was seen in several cantons as a major concern: “To remain competitive, to increase their work output, companies need a more skilled workforce and more technical officers, foremen and specialists (. . .) However, it is through apprenticeship that these skilled workers are trained” [37] (pp. 6–7). Moreover, in Ticino the importance of vocational education and training “for the canton’s economy” has been “repeatedly emphasized” [38] (p. 933) and in Zurich, it was stated that VET is “one of the most important foundations in our economy” [39].

In all three cantons the main legitimation was rooted in such market- and industrial-based concerns, which was shared by most actors. A less common feature, which was more prevalent in Geneva, was the tackling of equality issues, by advocating “vocational training tailored to their needs, correcting the consequences of social inequalities” [36] (p. 2346). The problem of low numbers of apprentices, typically in manual professions—e.g., in Ticino—was linked to social disparities: “Many parents (. . .) consequently push their children towards the cleaner and better paid professions. All the effort put into career guidance and aptitude assessment will therefore prove futile if the social causes that keep young people away from manual occupations are not removed” [38].

Another common feature was the attractiveness of apprenticeships and of VET. It was considered less prestigious if youngsters went directly to industrial work after completing mandatory school and did not enter in an apprenticeship [40]. Public opinion should also valorize technical and vocational education: “In order to ensure that a greater proportion of good people go on to careers as skilled performers and middle managers, it is important that technical and vocational education should have as much prestige as general education” [41] (p. 4).

We can identify for all cantons, that reforms in VET have always been linked to the market, market performance and competitiveness. However, a qualified workforce for industry was also an overall topic. Furthering VET on a cantonal level, meant valorizing VET and demonstrating the potential career options, which are included or are possible with such a choice.

8. Cantonal Action Regimes

The highlighted justifications for VET reforms around the cantonal implementation acts hint towards a more entrenched dispositive of possible argumentations. In the sense of Verdier [5–8] we discern two antipodes: a neo-corporatist regime of VET and a more universal- (and academically-) oriented regime of action. In the three cantons, apprenticeships have a different potential to flourish: while in Zurich professional organizations are present and play a role in encouraging firms to offer apprenticeship places, this is not quite the case in Ticino and in Geneva. Surprisingly less visible were the activities of the industrial associations and the unions, which played a more important role in the period at the end of the 1970s. In the foreground were the individual professional associations, which were concerned, that “the state does not interfere too much in economic and social matters and that as much space as possible is reserved for the direct understanding of the social partners” [42] (p. 21).

The leitmotif in Zurich is to support VET. In Ticino, its aim is primarily to develop and enable VET. Geneva on the other hand is focusing on an integration of VET in its education system. Thus a universal regime is the dominant ETR in this canton. Zurich on the other

hand relies on the power of the professional associations. For this reason, the state is less active and there is not such a strong will to reform existing VET. In this sense, we define Zurich as a neo-corporatist ETR. Geneva where traditional apprenticeships existed at a lower level, stresses the meritocratic logic of education. Thus, VET is part of an educational landscape. In Ticino, the developmental perspective is in the foreground: besides a much stronger school-based VET sector, apprenticeships should also gain more ground. Overall, in Ticino and Geneva, more civic concerns and the will to expand the VET sector are in the foreground, which however should fit and complete the existing school-based education.

The regimes that became established are not to be understood as exclusive and stable categories, but rather reflect dominant aspects. Too much but also too little control on the part of the cantons generated (new) tensions. Too rigid an involvement in the educational system could also lead to a distancing from firms and professional associations, while, conversely, too few pedagogical measures has led to criticism of the vocational education system, or even to a deselection of the learners and a greater approval of the baccalaureate schools. An overview is provided in Table 2 below.

Table 2. VET and justification orders: Zurich, Ticino, and Geneva (own representation).

Canton	Zurich	Ticino	Geneva
Leitmotif	<i>Supporting VET</i>	<i>Enabling VET</i>	<i>Integrating VET</i>
Principle of justification	VET as vocational education and training, rooted in the <i>market</i> and complemented by schools, provides economic welfare	VET as a tool to develop the cantonal economy and society (<i>market and civic</i>)	VET as part of the education system, is important for social, economic and <i>civic society</i>
Regimes of action [7]	Neo-corporatist regime	Hybrid of market and academic regime	Universal regime

9. Conclusions

Furthering VET is a topical issue today. The comparative literature is fixed upon the question as to whether it is possible to implement dual apprenticeships—seen as a gold standard—in other countries or regions. This paper, considering Swiss cantons from a historical perspective shows that there are cultural patterns or a dispositive, which further or hinder actions in relation to a model, which embraces the greater involvement of firms and firm associations and leads to different ETR. A neo-corporatist dimension is a basis for flourishing VET (and especially apprenticeships) in cantonal contexts, which however, differ considerably.

Action regimes, which foster VET cannot expand in a regime, which is only linked to the market. On the other hand, academic and universalist elements, which are essential for education systems and ETR, are a presupposition which educational reformers, who try to strengthen dual apprenticeships, have to take into account.

Hybrids of organized markets and a professional regime, including academic and universalist elements are the way in which all cantons have developed their VET further.

In newer publications, Eric Verdier discusses “integrated vocationalism” (his own German translation is even more explicit: “akademisierte Beruflichkeit”) [9], which means that the ETR have developed over the period studied.

During the period 1950–1970, fundamental changes occurred. The cantons developed their own policies in education and in VET. Although VET was designed as a national task, local actors implemented vocational programs in their own way. Thus a laboratory situation, i.e., a “laboratory federalism” emerged [13] which furthered—in the words of Verdier—an exchange of good practices. The comparative perspective which unfolded in this paper reveals different pathways that have to be adapted to a standardized code. The

presented tables are an analytical framework, which—in the sense of Jullien de Paris—could be applied also for comparisons on a European level [1].

Based on our research presented here, future research, with a focus on more recent developments, could attempt to analyze whether the differences at cantonal level will disappear in the long run or may even be reinforced. Still today, the question remains how to strengthen dual apprenticeships in a context where baccalaureate schools and academic pathways are viewed as the most attractive choice for youngsters, should they wish to be successful both in the economy and in life in general.

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Abbreviations

EPFL = Swiss Federal Institute of Technology Lausanne; ETH = Swiss Federal Institute of Technology Zurich; ETR = Education and Training Regimes; VET = Vocational Education and Training.

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