Placing mechanisms. An alternative approach to social stratification of students in higher education in Austria.

Research problem:

The aim of this work is to examine an original social stratification of students in higher education, which is a joint outcome of the students' social background and their current educational situation.

Theoretical considerations:

Using the concepts of cultural and economic capital the population of students can be understood as placed in a field organised along these two axes. While most attempts to understand educational inequalities focus on access to higher education only, this approach highlights the relational aspects of inequalities. This seems even more important, since developments like credential inflation and academic drift lead to an increased need for education (or certifications and titles) regardless of social origins while at the same the effects of the educational expansion are getting more and more central in the generation of today's students.

In addition, the field approach can shed light on educational inequalities as a result or at least a covariate of educational institutions resp. situations (even more on tertiary level).

Data and Methods:

The paper covers a sub-population of the Austrian student social survey (Studierenden-Sozialerhebung 2011). The (online) survey is a full sample and weighted using general administrative data. For the analysis a subsample of n=26.529 was drawn, excluding students in consecutive Master and PhD programmes and students with invalid information on their income situation.

In a first step, these students were clustered along their economic (family support and sufficiency of funding) and symbolic capital (motives for studying, plans after graduation and difficulties experienced while studying) using K-Means algorithms. The output is four clusters, each representing a certain type of student. In a second step, these types of students served as determinants in a correspondence analysis. In this analysis the habitual groups of students were placed relatively to their parents' occupation and educational attainment, and their migration background. As a third socio-demographic variable, students' gender is always part of the analysis. The fourth correspondence analysis positions clusters and study programmes (field of study and type of higher education institution).

Results:

Although they only serve as a heuristic tool, the found cluster themselves are of interest:

Cluster 1	Intrinsic motivation to study; hardly difficulties in HEI; employment and/or further education (not studying) envisaged or no plans yet; family contribution on average and financial difficulties below average
Cluster 2	Labour market orientation; hardly difficulties in HEI; consecutive programme (not employment and/or further education) envisaged; family contribution and financial difficulties below average
Cluster 3	Status, labour market and lifestyle as motives; personal study problems (motivation, concentration); employment, other study programme/further education; fam. contribution above average, fin. difficulties below
Cluster 4	Status, labour market, academia as motives; personal (concentration, stress, motivation) and study related problems (competition, social isolation, organisation of study program); further education, other study program or no plans; fam. contribution and fin. difficulties above average

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This relational structure indicates a quite diverse population in terms of starting points and expected outcome of the current education. The succeeding correspondence analysis is a first attempt to depict this social stratum. Figure 1 shows the distance of workers and peasants parents on the one and freelancer parents, such as lawyers or doctors, on the other end of the stratum. This indicates the overall effectiveness of occupational background for the placement in this stratum. Of interest is also the proximity of "female" to lower or unknown (most likely of absent father) occupational backgrounds and to clusters 1 and 4. At the same time, cluster 2 is in an interesting neighbourhood with farmers and parents who run their own business with employees. Additionally, "male" is slightly closer to higher occupational positions, as is cluster 3. The second correspondence analysis in Figure 2 affirms this, since cluster 3 is most closely to academic mothers and fathers. Again, "female" is very close to cluster 4 whilst cluster 2 is closer to "male" and vocationally educated parents. When it comes to migration background, there is obviously a strong tendency from left to right which can be understood as a stratum of privilege: on the left are "male" and "Residents without migration Background" while on the very right "Non-residents, with other mother tongue than German" can be found. Especially "Residents with 2nd generation migration background" are quite far away from the well performing student groups of clusters 1, 2 and 3. Finally, the institutional map in Figure 4 shows the inter-dependency of study performances and fields and modes of study. First interesting finding is that clusters 3 and 4 are quite close in terms of study programmes but the bad performing cluster 4 is closer to "female" as well as to "Humanities (GEWI)", "Science (NAWI)" and "Individual Studies". On the other hand, cluster 3 is closer to "Law (JUS)", "Business (SOWI)" and "Engineering (Technik)". All these subjects are taught at universities. Cluster 2 in opposition is surrounded by programmes at universities of applied sciences. Cluster 1 finally is clearly positioned in the field of socially orientated fields, such as teacher training ("Lehramt" at universities or all programmes at teacher training colleges (PH)) or social work and care ("FH-SOWI" and "FH-Gesundheit").

Conclusion:
The results verify several findings about tendencies in social and migration background and gender as determinants of the choice resp. field of study. The added value of this approach using cluster and correspondence analysis is the possibility of understanding educational inequalities as questions of (mis-)placement. E.g. one may expect clusters 3 and 4 to be far more discriminative in terms of study programme, since they were so regarding educational background. But it seems on the contrary, that their well- or bad-performing may be a result of placing in the stratum of study fields, since cluster 1 for instance appears to be better off while being also of rather low social background. This fact is understood as a result of the relational constitution of this social field and is supported by cluster characteristics such as getting above average family support and perceiving the financial situation as troubled. What should further be of concern is the persistence of gender disadvantages.

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Figure 1:   CA symmetric, Occupation of Parents
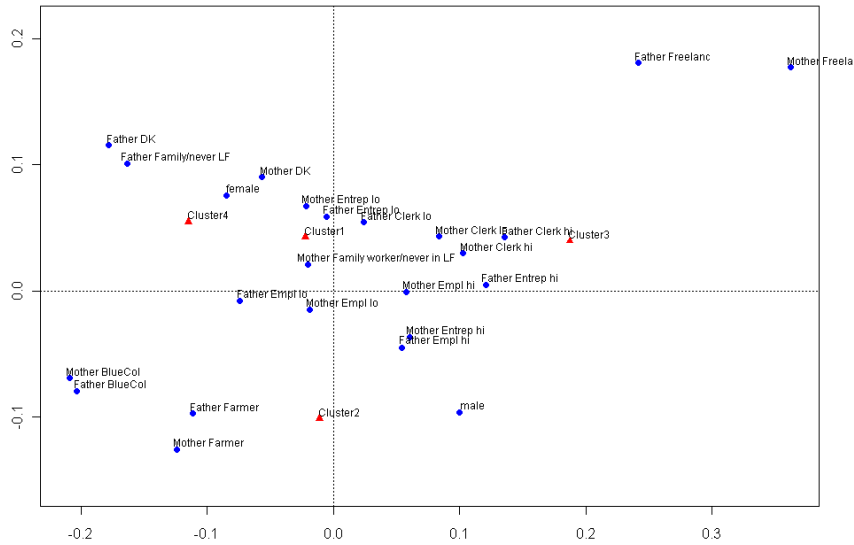

Figure 3:   CA symmetric, Migration background of Students
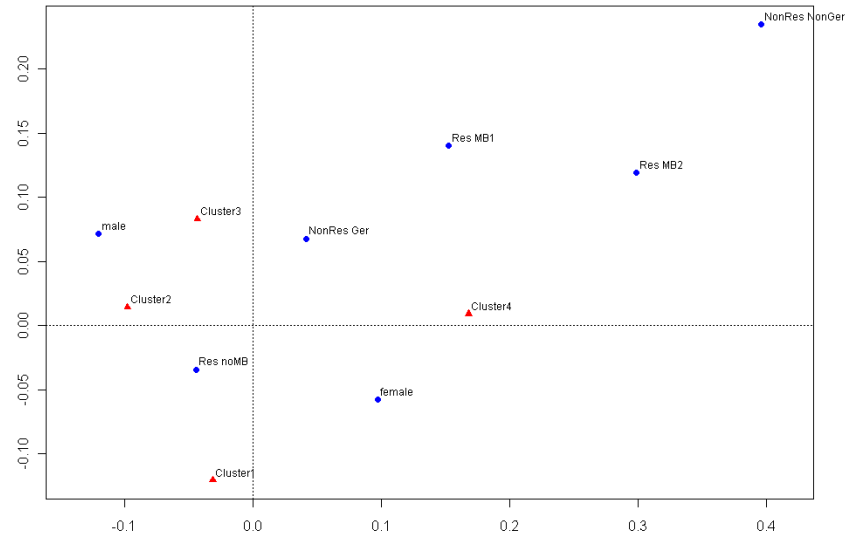

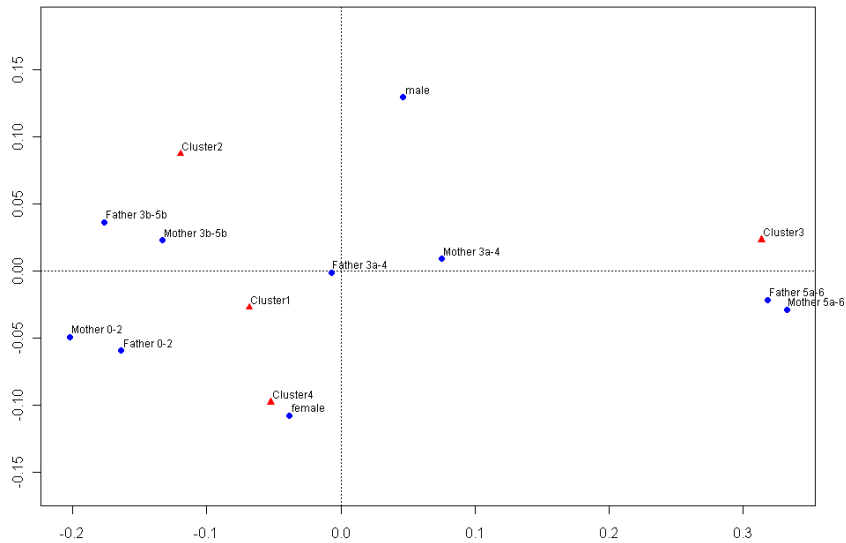**Figure 2:   CA symmetric, Education of Parents (ISCED 97 levels)**

Figure 4:   CA symmetric, Fields of Study & Type of HEI