The Role of Research Topics on Securing Funding and Careers for Swiss Sociologists

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Introduction

The decentralized structure of the Swiss academic landscape grants research organizations significant autonomy, hence fostering competition among scholars and heightening their reliance on external funding to pursue their career (Benninghoff and Braun 2010; Baschung et al. 2011). In this context, the Swiss National Science Foundation (SNSF) plays a pivotal role in shaping the careers of Swiss researchers. SNSF grants stand as particularly crucial for Swiss sociologists to overcome the bottleneck represented by the limited number of stable jobs in this discipline within Swiss universities. However, studies identifying structures and mechanisms of the labor market for Swiss sociologists are scarce (Diaz-Bone and Jann 2019). A pending question relates to the role of research topics on securing funding and advancing careers. This issue is particularly pertinent to sociology, often depicted as a fragmented discipline, structured by competition along epistemological or methodological lines (Kropp 2013; Wimmer and Schneickert

2018; Warczok and Beyer 2021; see also Schneickert and Wimmer in this volume). To inquire this question, we propose to map the space of Swiss sociology topics based on all SNSF grant abstracts with sociology as the main discipline (2010–2023). First, we draw on an innovative methodological approach combining Latent Dirichlet Allocation with Multiple Correspondence Analysis to summarize the dimensions that best resume the diversity of the Swiss sociological epistemic landscape. Second, we show how vocabulary profiles vary according to the SNSF funding schemes and the applicants' status in 2024, considering methodological approaches and thematic orientations.

Data and Methods

Drawing on the open access SNSF grant database, we specifically use the "Project with abstracts" dataset, which contains all the records of the projects from 1975 onwards. We limit our analysis to the period from 2010 to 2023 due to the unavailability of project abstracts for earlier years. We focus

Table 1   All SNSF grants in sociology (2010–2023), n = 589

funding scheme	number of grants	frequency (in %)
Early career grants	200	34.0
Advanced career grants	35	5.9
Projects (Div. 1, SSH)	248	42.1
Programs (NRPs, NCCRs, etc.)	74	12.6
International short research visits	32	5.4

Note: Early career grants (e.g. Doc.Mobility, Postdoc.Mobility) are essentially international mobility schemes at the doctoral and postdoctoral level. Advanced career grants (e.g. Ambizione, Excellenza, PRIMA) are designed to secure academic careers in Switzerland, often following a period of international mobility.
Source: https://data.snf.ch/datasets.

status	number of applicants	frequency (in %)
University professor	129	31.1
Other permanent in university	40	9.6
UAS professor	59	14.2
Other permanent in UAS	13	3.1
Assistant professor	11	2.7
Permanent in RPO	13	3.1
Non-permanent	95	22.9
Left academia	55	13.3

Note: UAS = University of Applied Sciences; RPO = Research Performing Organization.
Source: A combination of https://data.snf.ch/datasets and CV information.

on all grants where "Sociology" is recorded as the main discipline, resulting in a sample of 589 grants with available abstracts, and 415 unique responsible applicants. Table 1 summarizes the sample by funding scheme, while Table 2 displays the status of all unique applicants as in 2024, as retrieved from available CV information.
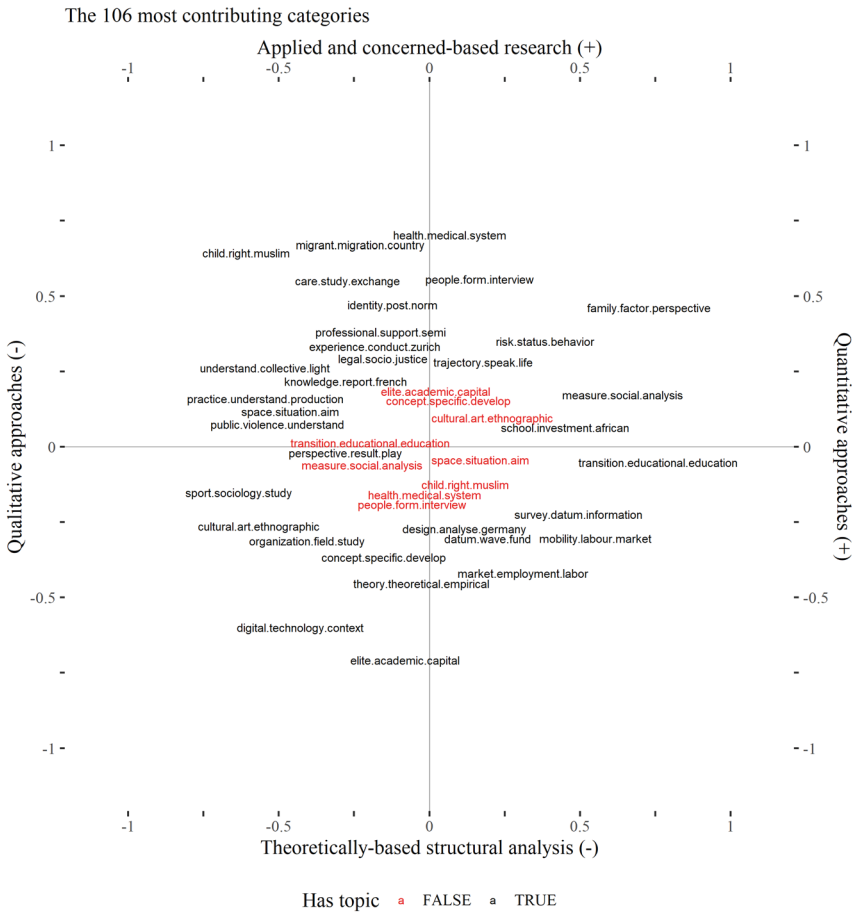
We define a topic as set of "highly probable words" automatically inferred from their co-occurrence in documents (Blei and Lafferty 2009, 72). Each document—specifically, each SNSF grant abstract—is considered a collection of topics, with the appropriate probability of each document belonging to each topic (Blei 2012). We follow Kropp and Larsen (2023) and Rossier et al. (2023) and combine Latent Dirichlet Allocation (LDA) (Blei et al. 2003) with Multiple Correspondence Analysis (Le Roux and Rouanet 2004; Hjellbrekke 2018) using the "topicspace" package for R by Benz and Larsen (2024). Several topics are attributed to each document, and the resulting topic space depicts the distribution of topics based on their association with documents. Hence, topics that are commonly shared are displayed close to one another in the topic space, while topics that

are rarely combined in documents are displayed farther apart. Hierarchized dimensions summarize the principal axes of structure among topics. This approach allows us to identify the topics that contribute most to structuring the space. In addition, we can measure the distribution of the most prevalent vocabulary associated with SNSF funding schemes and applicants' status in 2024. For this, we calculate the risk ratio (RR) as the relative risk of a certain event—being attributed a term—occurring in one group, such as a specific funding scheme, compared to the risk of it occurring in another group.

The Space of Swiss Sociology Topics (2010–2023)

Figure 1 displays the distribution of the topics ($k = 75$) along the two first dimensions of the factorial plan. Although there are multiple dimensions, their relative importance in explaining the structure of the space deceases progressively. Here, we focus on two dimensions, which account for 46.4% of the variance explained by the model, with a Benzecri's adjusted inertia 35.3% for the first dimension and 11.1% for the second.

The 106 most contributing categories

Applied and concerned-based research (+)

Qualitative approaches (-)

Quantitative approaches (-)

Qualitative approaches (+)

Quantitative approaches (+)

Theoretically-based structural analysis (-)

Has topic   a FALSE   a TRUE

Source: https://data.snf.ch/datasets.

The first dimension opposes "qualitative approaches" to "quantitative approaches". At the left-end side, the most contributing topics are formed of the expressions *practice.understand. production*, *understand.collective.light*, *political. process.context*, and *cultural.art.ethnographic*. Research in this fraction of the space centers on the interpretive analysis of everyday social practices (e.g., cultural, artistic, political production) and interactions within specific contexts. Ethnography is a key method in these studies, often relying on direct observation and thus constituting qualitative

research. At the right-end side, the most contributing topics are *inequality.datum.social*, *survey.cohort.longitudinal*, *transition.educational.education*, and *family.factor.perspective*. Research here typically focuses on inequalities, sometimes employing a life course framework to study transitions across key life stages (e. g., educational transitions) and dimensions (e. g., family), and using longitudinal surveys as their main data sources. This data-based research is primarily quantitative.

The second dimension reflects an opposition between "applied and concerned-based research" and "theoretically-based structural analysis". At the upper-end side, the most contributing topics are *health.medical.system*, *people.form.interview*, *gender.woman.equality*, *child.right.muslim*, and *migrant.migration.country*. Research in this fraction of the space focuses on health, gender, children's rights, or migration, reflecting more applied and socially-grounded topics. These studies might rely on empirical methods such as interviews for addressing pressing social concerns. At the bottom-end side, the most contributing topics are *elite.academic.capital*, *theory.theoretical.empirical*, *digital.technology.context*, and *concept.specific.develop*. Research here is oriented toward macro-level dynamics and structural analysis, empirically examining how the social world is shaped (e. g., elite studies, science and technologies studies). This type of research is characterized by broader theoretical and conceptual developments.

The distribution of topics in Swiss sociological research is primarily influenced by the methodological approach of the research. The thematic orientation is secondary, with research focused on pressing social issues and practical applications contrasting with more theoretical and fundamental research centered on science and elite studies.

The Most Prevalent Vocabulary According to the Funding Schemes and Applicants' Status in 2024
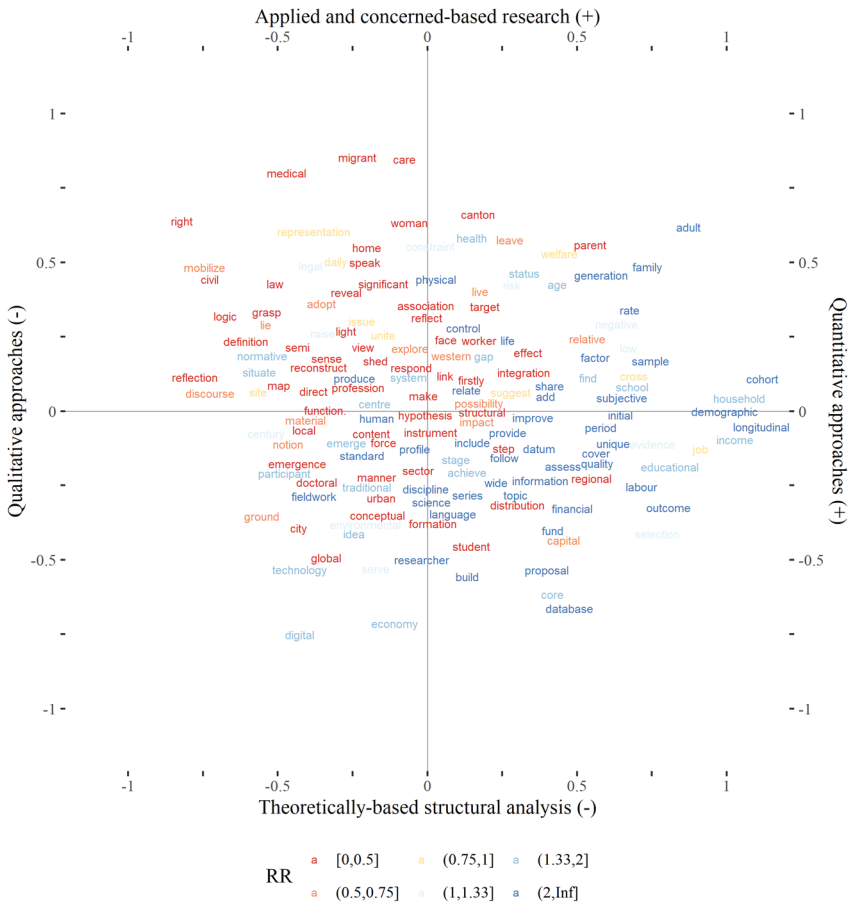
In this paper, we assume that the importance of some terms varies according to the funding scheme and the current status of the main applicants. Figure 2 displays the risk ratio (RR) for each term to belong to the top five percent of most funded projects.

Figure 2 illustrates that terms such as "cohort", "longitudinal", "labor", and "dataset" (highlighted in blue) are among those with the highest risk ratios when examining the top 5% of most funded projects. Conversely, terms like "reflection", "logic", "conceptual", "regional", and "women" (highlighted in red) have the lowest risk ratios, indicating they are rarely mobilized within these top-funded projects. While the most prevalent terms may appear in different locations in the space, there is a noticeable concentration of vocabulary towards the right-end side, which represents "quantitative approaches", and, to some extent, towards the lower-end side, which represents "theoretically-based structural analysis".

To systematically compare vocabulary across different funding schemes, we calculate the x and y coordinates of terms associated with the highest risk ratios for each funding scheme. By doing so, we are able to describe and situate specific vocabulary based on the coordinates of the most prevalent terms (Figure 3).

The distribution of the terms along the first dimension reveals a significant difference in the methodological approach associated with each funding scheme. We observe that the schemes *programs* and *advanced career grants* predominantly use vocabulary from the right-end "quantitative approaches" side of the topic space, similar to the top 5% most funded projects. In contrast, vocabulary

Figure 2   Space of vocabulary. Higher risk ratios (RR) for belonging to the top 5% of most funded SNSF projects are displayed in blue, while lower risk ratios are shown in red
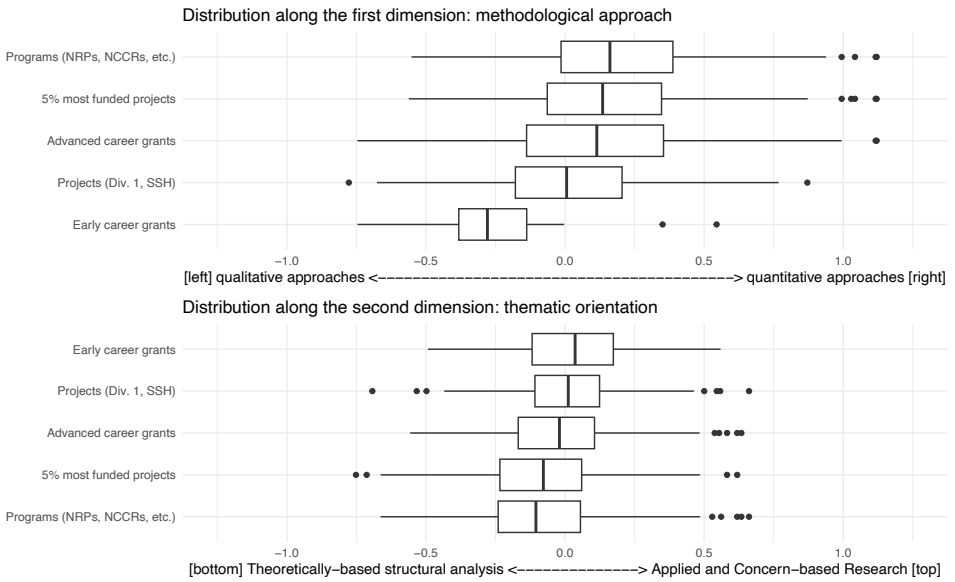

Source: https://data.snf.ch/datasets.

associated with more ordinary *projects* (Div. 1, SSH) is evenly distributed across the space, reflecting the broad range of topics these projects are susceptible to cover. *Early career grants*, on the other hand, are more likely to mobilize vocabulary from the left-hand "qualitative approaches" side. These patterns are empirical evidence of the existence of a preference for "quantitative approaches" vocabulary when success rates are low and career stakes are high. The distribution of terms along the second dimension shows less pronounced differences across funding schemes. Vocabulary for ordinary *projects* (Div. 1, SSH) is evenly distributed, as are the terms for early and advanced career grants. Programs, however, appear slightly more aligned with "theoretically-based structural analysis".

Figure 3   Distribution of the most prevalent terms' coordinates along the first and second dimensions according to the funding scheme

Source: https://data.snf.ch/datasets.

Distinction based on thematic orientation is more salient when comparing the most prevalent terms according to the status of applicants in 2024 (Figure 4).
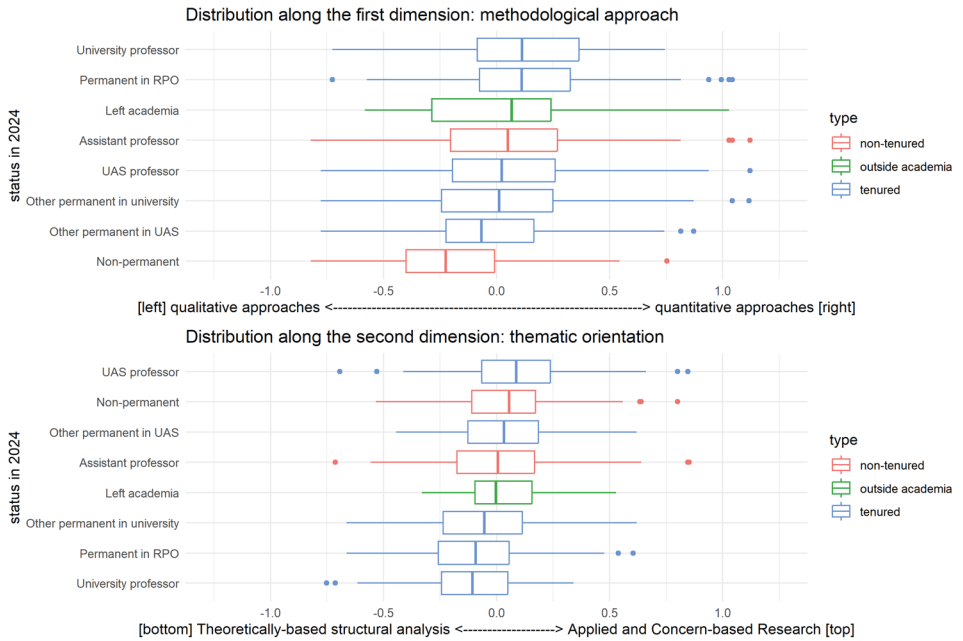
The first dimension of Figure 4 reveals the absence of pronounced differentiation in methodological approaches among sociologists with tenured positions. In contrast, sociologists with non-permanent positions in 2024 predominantly use terminology that leans towards the left-end side, reflecting qualitative methodologies. The second dimension highlights the effect of applicants' status on the most prevalent vocabulary describing the thematic orientation of their research. Professors at universities of applied sciences (UAS) are more likely to mobilize terms associated with "applied and concern-based research", while university pro-

fessors are more prone to orient towards "theoretically-based structural analysis". Sociologists with non-permanent positions in 2024 are more likely to produce "applied and concern-based research". Applicants who have exited academia do not exhibit a distinct vocabulary profile. Therefore, there is no evidence suggesting that either methodological or thematic orientation significantly influenced the chances to remain in or leave academia.

Conclusion

In this short original study, we aimed to provide empirical insights into the role of research topics on securing funding and advancing careers of Swiss sociologists. To this end, we constructed a topic space using all sociological abstracts recorded in the SNSF grant database from 2010 to 2023. By

Figure 4   Distribution of the most prevalent terms' coordinates along the first and second dimensions according to applicants' status

Source: A combination of https://data.snf.ch/datasets and CV information.

employing Latent Dirichlet Allocation (LDA) and multiple correspondence analysis, we mapped the distribution of specific vocabulary across funding schemes and the status of applicants in 2024.

Our findings indicate that the principal dimensions structuring the space of Swiss sociology topics—methodological approach and thematic orientation—significantly impact the likelihood of securing funding and career progression. Specifically, our analysis reveals that early career grants tend to be associated with qualitative approaches and applied or concern-based research, both more commonly linked to non-permanent academic status in 2024. In contrasts, those sociologists who have obtained critical—advanced career—grants

for pursuing an academic career and eventually achieving tenured professorships tend be aligned with quantitative methodologies and mobilize a vocabulary, which closely aligns with that of the top 5% most funded projects.

Although these findings should be confirmed with further analyses, the difference in vocabulary profile between sociologists who secure advanced career grants and those who obtain early career grants is intriguing. While early career funding allows for a broad diversity of topics, advanced career grants are more methodologically restrictive and somewhat thematically constrained. Given the critical role of SNSF grants in helping Swiss sociologists navigate the bottleneck of limited

stable academic positions, this situation is poised to exacerbate future inequalities within the field of Swiss sociology. It creates a scenario in which those with a certain "sense of placement" (Bourdieu 1991)—the ability to anticipate the symbolic profit of adopting a dominant vocabulary profile—are better positioned to accumulate future grants.

Lastly, these results imply that early-career sociologists aspiring to become professors have better chances of securing advanced career grants—often perceived as necessary for obtaining tenure—if they adopt quantitative methodologies and align with more established thematic orientations. However, this trend poses a challenge to the valorization of epistemic diversity within the Swiss sociological field. By favoring certain methodological approaches and topics, the current funding structure risks marginalizing alternative forms of scientific knowledge production.

References

Baschung, Lukas, Goastellec, Gaële, & Leresche, Jean-Philippe (2011). Universities' Autonomy in Times of Changing Higher Education Governance: A study of the Swiss academic labour market. *Tertiary Education and Management*, 17, 51–64. https://doi.org/10.1080/13583883.2011.552625.

Benninghoff, Martin, & Braun, Dietmar (2010). Research Funding, Authority Relations, and Scientific Production in Switzerland. In Richard Whitley, Jochen Glaser, & Lars Engwall (Eds.), *Reconfiguring Knowledge Production: Changing Authority Relationships in the Sciences and Their Consequences for Intellectual Innovation*, 81–109. Oxford: Oxford University Press.

Benz, Pierre, & Larsen, Anton G. (2024). topicspace: Mapping Topic Spaces Combining Latent Dirichlet Allocation with Multiple Correspondence Analysis. R package version 0.1.0. https://github.com/BenzPierre/topicspace.

Blei, David M., Ng, Andrew Y., & Jordan, Michael I. (2003). Latent Dirichlet Allocation. *Journal of machine Learning research*, 3, 993–1022.

Blei, David M., & Lafferty, John D. (2009). Topic Models. In Ashok Srivastava, & Mehran Sahami (Eds.), *Text Mining: Classification, Clustering and Applications*, 71–93. London: Chapman and Hall/CRC.

Blei, David M. (2012). Probabilistic Topic Models. *Communications of the ACM*, 55(4), 77–84. https://doi.org/10.1145/2133806.2133826.

Bourdieu, Pierre (1991). *Language and Symbolic Power*. Cambridge, UK: Polity Press.

Diaz-Bone, Rainer, & Jann, Ben (2019). Editorial–Professional Career Paths and the Labor Market for Sociologists. *Bulletin of the Swiss Sociological Association*, 155, 1–3.

Hjellbrekke, Johs (2018). *Multiple Correspondence Analysis for the Social Sciences*. London: Routledge.

Kropp, Kristoffer (2013). Social Sciences in the Field of Power–the Case of Danish Social Science. *Social Science Information*, 52(3), 425–449. https://doi.org/10.1177/0539018413482843.

Kropp, Kristoffer, & Larsen, Anton G. (2023). Changing the Topics: The Social Sciences in EU-funded Research Projects. *Comparative European Politics*, 21(2), 176–207. https://doi.org/10.1057/s41295-022-00313-5.

Le Roux, Brigitte, & Rouanet, Henry (2004). *Geometric Data Analysis: From Correspondence Analysis to Structured Data Analysis*. Dordrecht: Kluwer.

Rossier, Thierry, Benz, Pierre, Larsen, Anton G., & Kropp, Kristoffer (2023). The Space of Research Topics in Economics: Scientific Position-Takings and Individual Positions in

Swiss Economic Science. *Œconomia. History, Methodology, Philosophy*, 13(2), 427–473. https://doi.org/10.4000/oeconomia.15359.

Warczok, Tomasz, & Beyer, Stephanie (2021). The Logic of Knowledge Production: Power Structures and Symbolic Divisions in the Elite Field of American Sociology. *Poetics*, 87, 101531. https://doi.org/10.1016/j.poetic.2021.101531.

Wimmer, Christopher, & Schneickert, Christian (2018). Konflikt, Autonomie und Orthodoxie. *Soziale Welt*, 69(H. 2), 182–210. https://doi.org/10.5771/0038-6073-2018-2-182.