

An Empirical Self-Evaluation of Entrepreneurship Researchers in the German Speaking World

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Abstract

In this paper the critical theses as well as our propositions from our 2008 paper (Mugler and Fink 2008) are evaluated in a survey among researchers in the field of entrepreneurship in the German speaking world (return rate 32,5%, n=103). Thus, we present a self-picture of the entrepreneurship researchers. The results highlight the importance of the deficiencies of today's entrepreneurship research addressed in the theses and shows a surprisingly strong consent among researchers in feeling the need for change in common practice. On the basis of these results the discomfort felt in the area of entrepreneurship research and the need for action arising thereof can be made visible for discussion.

1. Introduction

Entrepreneurship research seems to have entered a period which asks for a critical reflection of the adopted approaches, which goes beyond the usual critical discussion of published individual findings (Sarasvathy 2004, Steyaert 2005). Hence, a short recapitulation of our paper (Mugler and Fink 2008) presented at the Rencontres de St-Gall 2008 provides the bareback version of our theses on the deficits of the current research practice in entrepreneurship research and the possible paths for future research (see Table 1). The focus of this paper is on providing a self-picture of the entrepreneurship researchers in the German speaking world. For that we conducted a survey asking the researchers who are active in the field of entrepreneurship research to evaluate the theses and propositions developed in our 2008 paper with regard to their relevance and accuracy. The resulting picture highlights the importance of the deficiencies of today's entrepreneurship research addressed in the theses and shows a surprisingly strong consent among researchers in feeling the need for change in common practice. On the basis of these results the discomfort felt in the area of entrepreneurship research and the need for action arising thereof can be made visible for discussion.

Table 1: List of critical theses and propositions for future research from the 2008 paper

Thesis 1:	Entrepreneurship research produces for itself: the aim of the majority of researchers is the composition of a career-optimal list of presentations at conferences and publications in journals which enjoy the highest possible standing within the relevant scientific community.
Thesis 2:	The scientific community is highly fragmented in the field of entrepreneurship research. Integration occurs at best in the context of small international virtual research groups, which establish around single dominant researchers.

Thesis 3:	Entrepreneurship researchers work on highly specialised questions on the basis of small, distorted samples which are only relevant for very specific contexts.
Thesis 4:	Methodical requirements are the far more important quality criteria for research papers than content and practical relevance.
Thesis 5:	Research results are hardly noticed or applicable respectively outside the relevant scientific community.
Thesis 6:	Within the framework of the <i>Gestalt</i> approach assertions can be made on a much lower level of abstraction. The lower level of abstraction leads, however, to a higher level of complexity, which makes the condensation and communication of research results more difficult.
Thesis 7:	Entrepreneurship research is focused on mono-causally linking input and output factors.
Proposition 1:	Researchers do not agree with the critical theses and suggest going on in entrepreneurship research in the current mode.
Proposition 2:	Researchers realize that they cannot develop theories in entrepreneurship research and therefore agree with the suggestion to focus on the formulation of theories of medium range.
Proposition 3:	Researchers realize that they cannot be the better entrepreneurs and that the entrepreneurs are not the better researchers and therefore agree with the suggestion of division of labour between researchers and entrepreneurs. Accordingly, researchers try to identify determinants and processes of typical events and developments and entrepreneurs handle the specific case.
Proposition 4:	Researchers realize that their isolated research programs lead to incommensurable results and therefore agree with the suggestion that it needs a coordination of the single research activities in entrepreneurship research.
Proposition 5:	Researchers realize that in social science general statements are only possible at high levels of abstraction and with a big time-lag which make them of little use for entrepreneurs. Researchers therefore agree with the suggestion of a radical reorientation of entrepreneurship research giving up the aim to provide entrepreneurs with rules for action but to enhance their abilities to formulate subjective theories themselves instead.

2. Empirical validation of the critical theses and the propositions for future research

In order to validate the results of the literature research and the conceptual approaches presented in our 2008 paper (Mugler and Fink 2008) the mood among German-speaking researchers was surveyed. Both their position on the criticism of entrepreneurship research that was formulated in the seven theses and the five possible methods of resolution were collected in an expansive online-survey. The sample of this *expert survey* (see for instance Bogner et al. 2002) comprises both members of the Förderkreis Gründungsforschung e.V. (FGF) and members of the Section for Management of Technology and Innovation (TIM) of the German Academic Association for Business Research (VHB). Since these are the by far biggest organisations, where entrepreneurship researchers of German speaking countries are members, it can be assumed that the coverage with regards to research topic and region is very high. The FGF consists of 182 members, the Section for Management of Technology and Innovation (TIM) consists of 176 researchers (status 2008). After eliminating double memberships the sample adds up to 323. 105 out of these 323 persons could be questioned successfully in an anonymous and personalised (in order to prevent persons from completing the questionnaire several times) online-survey. This gives a return rate of 32.5 %.

The survey could be completed for one week. Out of the 105 persons, who completed the questionnaire, two were no scientists but consultants or entrepreneurs and were therefore excluded from the

evaluation. This leaves 103 persons who were included in the analysis. 35% thereof were pre-docs (wissenschaftliche Mitarbeiter) or postgraduates, 31.1% university professors (thereof 1 junior professor), 21.4% post-docs or assistant professor and 12.6% professors at universities of applied science (FH-Prof). Their place of research was situated in Germany (74.8%), Austria (10.7%), Switzerland or Liechtenstein (7.8%) and other countries (6.8%). 69% of the respondents have their scientific roots in the field of business administration, 9% in economics and sociology, 3% in psychology and 2% in computer sciences and engineering and business and business and human resource education respectively.

2.1. What is the entrepreneurship researchers' opinion on the critical theses?

The ranking of the critical theses on the status quo of entrepreneurship research may be taken as a first picture of the results of the survey: almost three-quarter of the respondents (74.6%) agree with the thesis that the results of entrepreneurship research are hardly noticed and hardly applicable outside the relevant scientific community. Even if it is acknowledged that entrepreneurship research is partly designed as fundamental research, the result provokes the question of social legitimation and hence the provision of public resources for entrepreneurship research. Why should a research discipline be supported by society, if the results of this research discipline currently do not substantially benefit society and if more dramatic economic problems are to be solved at present? A breakdown of the results according to the positions of the respondent in the academic hierarchy may illustrate this. Almost 93% of the responding post-doc researchers and assistant professors and almost two third of the postgraduate researchers and university professors share this pessimistic view. In contrast to that the corresponding share of professors at universities of applied science amounts to approximately 9%. The response behaviour differs significantly between the respondents' position. The one-way ANOVA shows a medium difference of -0.276 with a significance level amounting to $p=0.033$. It can be shown that the practical research of universities of applied science, which is oriented towards the solution of concrete problems in individual cases, unfolds a higher level of directly experienced benefit than the fundamental research at universities.

This allocation of tasks between universities and universities of applied science is also reflected in the results to thesis 1 with the second highest support within the relevant scientific community: 70.8% of entrepreneurship researchers share the opinion that the researchers working in this field produce for themselves. This egocentric work ethos expresses in the fact that the majority of researchers aims at composing a career-optimum list of presentations at conferences and publications in journals which enjoy high reputation among the respective scientific community. This behaviour is the logic conclusion of the target system demanded by the competitive scientific environment, which reduces career planning to the collection of points for publication achievements based on rankings without taking the published contents and their significance into consideration. The frustration seems to be especially high among post-doc researchers or assistant professors and university professors. Approximately 78% of the respective group agree with the corresponding thesis. However, only half of the professors at universities of applied science share this opinion. Even if the difference is not significant, the trend suggests a more activity-oriented approach at universities of applied science.

Table 2: Empirical results on the critical theses and the propositions for future research

	academic position					average	rank
		PreDoc	PostDoc	Univ.Prof.	FH-Prof		
<i>total sample (share %)</i>	<i>n=103</i>	<i>36 (34,0)</i>	<i>21 (21,4)</i>	<i>31 (30,1)</i>	<i>15 (14,5)</i>		
Critical theses							
ER produces for itself.	pro	68,0	78,6	78,3	50,0	70,8	2
	contra	32,0	21,4	21,7	50,0	29,2	
The scientific community in ER is highly fragmented.	pro	55,6	87,5	56,5	40,0	63,2	3
	contra	44,4	12,5	43,5	60,0	36,8	
Methodical requirements are the far more important quality criteria for research papers than content and practical relevance.	pro	41,4	72,2	57,7	66,7	55,6	7
	contra	48,6	27,8	42,3	33,3	44,4	
Entrepreneurship researchers work on highly specialised questions on the basis of small, distorted samples which are only relevant for very specific contexts.	pro	56,5	57,1	50,0	66,7	56,5	6
	contra	45,5	42,9	50,0	33,3	43,5	
Research results are hardly noticed or applicable respectively outside the relevant scientific community.	pro	65,2	92,9	65,2	9,1	74,6	1
	contra	34,8	7,1	34,8	90,9	25,4	
The Gestalt approach generates results on lower levels of abstraction that are more complex and harder to communicate.	pro	59,1	69,2	45,5	66,7	60,6	4
	contra	40,9	30,8	54,5	33,3	39,4	
Entrepreneurship research is focused on linking input and output factors.	pro	66,7	61,1	42,3	87,5	59,5	5
	contra	33,3	38,9	57,7	12,5	40,5	

The fragmentation of the scientific community ranks third in the perception of entrepreneurship researchers with a consent of 63.2%. This issue is experienced predominantly by pos-doc researchers and assistant professors (87.5%) and less by postgraduate researchers (55.6%), university professors (56.5%) and professors at universities of applied science (40%). The differences in the response behaviour of these groups are statistically significant. The one-way ANOVA shows a medium difference -0.319 with a significance level amounting to $p=0.018$. The post-hoc-test shows a significantly different distribution of answers between postgraduate researchers and post-doc researchers or assistant professors: the medium difference amounts to -0.319 with a significance level of $p=0.038$. A possible explanation for that may be found in the limited professional and personal area, where postgraduate entrepreneurship researchers usually operate. This surrounding is characterised by the colleagues at the home scientific community and the supervisor of the doctoral dissertation and hence clearly structured. Post-doc researcher and assistant professors have to develop a new field of research in order to work their academic way up. Hence, neither the professional nor the personal area is clearly delineated or structured. International networks of individual colleagues who work on comparable problems arise. These groups of researchers mostly act in an isolated way. Neither other comparable groups of researchers nor the colleagues at the respective home scientific institution are included in the research

activities, since the delineation presents the key to the development of the own field of research. Once a chair has been obtained, the development of a network in the relevant scientific community seems to have been successful and the fragmentation is experienced less drastically. The pos-hoc-test supports this argument. With an average difference of the mean value of 0.156 and a significance level of $p=0.049$ a significantly lower agreement can be observed among university professors than among post-doc researchers or assistant professors.

Anyhow, almost 60% of the respondents share the opinion that a Gestalt approach of entrepreneurship research leads to more complex results which are thus more difficult to communicate. The response behaviour does not differ significantly between groups at different points of the academic career ladder.

The criticism whereby entrepreneurship research focuses on the connection of input and output data, is supported by 60% of the respondents (rank 5). A significant difference in the response behaviour cannot be found either.

The result of these two theses reveals that entrepreneurship research is generally regarded reductionist not only by persons outside the field but interestingly also by representatives of the field.

The last two critical theses take the same line, whereby first entrepreneurship research examines highly specialised questions on the basis of small, distorted samples which are only relevant within a special context (average agreement 56.5%, rank 6) and second methodical demands are far more important than relevance with regard to contents (average agreement 55.6%, rank 7). While the criticism on the treatment of tiny and unrelated pieces of reality is supported equally on all academic hierarchical levels, statistically significant differences arise with respect to the preference of the application of more demanding methods to the treatment of demanding questions. The one-way ANOVA shows a medium difference of -0.308 and a significance level of $p=0.040$. Post-doc researcher or assistant professors are more frustrated that the focus is set on methods than postgraduate researchers and university professors. This seems to result from the higher publication pressure on the verge of the *Habilitation*. At this stage post-doc researcher thrust themselves into high-ranking journals, which are recently paying more and more attention to the applied methods in the selection of the manuscripts that shall be published.

The comparison of averages shows that neither the location of the home scientific institution nor the original discipline of the questioned entrepreneurship researcher has significant influence on their position to the objections.

2.2. What is the entrepreneurship researchers' opinion on the methods of resolution

Within the framework of the survey the approaches for overcoming the critical situation of entrepreneurship research presented in the paper at hand was tested for its support within the relevant scientific community. It could be shown that the renunciation from the attempt to formulate far-reaching generally accepted theories towards medium range theories receives the highest support. An average 79.2% regard this approach as suitable future prospects for their field of research. With regard to this approach there are no significant differences between respondents on different steps of their academic career.

The approach directed towards a stronger coordination of individual efforts has a similar number of supporters (78.3%). The assessment of this approach differs significantly between post-doc research-

ers or assistant professors and university professors. While all responding entrepreneurship researchers in positions leading them to a *Habilitation* call for a better internal coordination of research efforts within the field, one third of the university professors does not see the potential of this measure. This result shall be interpreted against the background of the fragmentation of the environment which is experienced more strongly by post-doc researchers or assistant professors. The psychological strain arising due to the missing coordination in the field and the isolation in the own, often tightly defined, field of research seems to be highest at that point of the career. Hence, the demand for an integration of the activities in this field is articulated loudest within this group.

Table 3: Empirical results on the propositions for future research

		academic position						
		Pre-Doc	Post-Doc	Univ.Prof.	FH-Prof	average	rank	
<i>total sample (share %)</i>		<i>n=103</i>	<i>36 (34,0)</i>	<i>21 (21,4)</i>	<i>31 (30,1)</i>	<i>15 (14,5)</i>		
<i>Propositions for future research</i>								
Go on in entrepreneurship research in the current mode	pro	15,0	20,0	27,8	25,0	21,3	5	
	contra	85,0	80,0	72,2	75,0	78,7		
Focus on the formulation of theories of medium range	pro	69,0	85,7	86,4	83,3	79,2	1	
	contra	31,0	14,3	13,6	16,7	20,8		
Divide labour between researchers and entrepreneurs	pro	37,0	47,4	44,8	50,0	43,4	3	
	contra	63,0	52,6	55,2	50,0	56,6		
Coordinate the single research activities	pro	81,5	100	66,7	71,4	78,3	2	
	contra	18,5	0	33,3	28,6	21,7		
Radical reorientation on enhance the entrepreneurs' abilities to formulate subjective theories	pro	43,3	25,0	21,4	53,8	34,5	4	
	contra	56,7	75,0	78,6	46,2	65,5		

Considerably less entrepreneurship researcher (43.4%) regard a division of labour between scientists and entrepreneurs as the right way to success. There are no significant differences between the groups worth mentioning.

Only approximately one third (34.5%) of the respondents argue for a radical reorientation of entrepreneurship research. Or should one say: after all one third? The reluctance seems to be understandable as such a radical change would imply an abrupt devaluation of drudgingly gained knowledge not only at a personal, but also social level. Researchers need to pay attention that they do not get into conflicts with the positions of potential jurors (in academic boards and editorial boards of journals). Innovations are always risky – not only for “real world entrepreneurs”, but also “young scientist entrepreneurs”, as they attack established market positions of powerful competitors.

Compared to that, the benefit of such a revolution is regarded as relatively low. This result could easily be interpreted as evidence for a low degree of suffering and a weak problem perception. This interpretation is, however, contradicted by the fact that only 21.3% of the respondents would like to follow the existing path. Hence, almost four out of five entrepreneurship researchers support the main thesis of this paper: a reorientation of entrepreneurship research is needed!

3. So what?

After one decade of dramatic expansion of entrepreneurship research in the academic structures in the German-speaking world and the uncritical reception of the research results generated at these institutions, on the one side within the scientific community and on the other side by the media, a new generation of researchers which has thoroughly dealt with the foundation and the development of entrepreneurship research has grown up (Davidsson and Wiklund 2001). The scepticism that has always been shown by the older generation of researchers to the highly dynamic entrepreneurship movement which was carried by a positivistic belief in progress now forms the basis for a critical discussion with practical research on the subject of entrepreneurship and for the evaluation of the generated research results. The deficits, which are displayed by our situation analysis, may be summarised as follows:

We find a strongly fragmented field of research, where small isolated groups of highly specialised career-oriented researchers work on smallest pieces of reality on the basis of samples which are too small, too distorted and too context sensitive on a methodologically high level. The results of these efforts are detailed conclusions of causal relations between single variables which have been detached from further context. These conclusions often cannot be related to earlier results and are hardly practice-oriented due to the lack of content and coverage. Entrepreneurs hardly perceive entrepreneurship research. This is probably also true, at best in a weaker form, for knowledge intermediaries such as consultants and experts on education.

The question is, whether the high costs, which are caused to society by research, may be justified by the research results and their practical impact. One may answer: Probably not in the current situation of entrepreneurship research. Entrepreneurship research needs a way out of the intensifying focus on itself with concepts that benefit society today and not only in remote future. Repeated announcements that the large number of single results will at some point lead to a satisfying theory which is able to explain “everything” (and hence possesses a large coverage) will be implausible by and by. Entrepreneurs demand useful (viable) research results, which are able to help with the solution of their problems efficiently. Less far reaching explanation attempts, a clear division of labour with entrepreneurs and a better coordination among researchers may lead to incremental improvements.

Entrepreneurship research cannot and shall not release entrepreneurs and their reference groups within and outside of the enterprise from their very own task and the burden of their decision processes – from the search of possible fields of activity and their evaluation to their implementation and control. The recognition of chances and the use of these chances for adequate decisions is the very own challenge of the entrepreneurial function. This function is not generated in order to be followed but as antipole to the rational planning and creation of the future (which is based on research). Society needs entrepreneurs most notably for its future when forecast and planning experts fail, that is especially during times of change. The radical way out of this maze of current entrepreneurship research hence leads to qualifying entrepreneurs for the acknowledgement of their functions in the economy and society instead of supplying them with advice for their decisions.

Just as the Delphic oracle cannot be blamed for the decline of the Lydian Empire (due to the advice for King Croesus “If you cross River Halys, a great empire will be destroyed”), entrepreneurship research would not be in responsible for ambiguous advice for specific situations any longer. The alternative thereto could be found by the antique Delphic pilgrims above the entry of the holy temple and should also be offered to today’s entrepreneurs more often: “Know thyselfes!”

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