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The Story of Writing and Publishing a Research Article: An Autoethnographic Account of an Early Career Researcher (ECR) in India

Abhradip Banerjee

Government General Degree College, Singur, West Bengal, India, banerjeeabhradip@yahoo.com

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Abstract

Process of peer-reviewing plays a pivotal role in scientific development, especially in academic writing and publication. The process of peer-reviewing, however, is surrounded by issues like inconsistent, subjective, unprofessional comments from reviewers, abuse of peer-review leading to reviewers stealing original ideas, and most importantly huge gap between the actual time requirement and sheer time wasted for evaluation of manuscripts. This article provides an autoethnographic account of conceptualizing, writing, and publishing a research article of an early career researcher (ECR) in India, through which it aims to show how outcomes of the peer-review process make an impact upon the minds of budding researchers.

Keywords

academic writing, peer-review, autoethnography, early career researcher (ECR), India

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Abhradip Banerjee
Government General Degree College, West Bengal, India

Process of peer-reviewing plays a pivotal role in scientific development, especially in academic writing and publication. The process of peer-reviewing, however, is surrounded by issues like inconsistent, subjective, unprofessional comments from reviewers, abuse of peer-review leading to reviewers stealing original ideas, and most importantly huge gap between the actual time requirement and sheer time wasted for evaluation of manuscripts. This article provides an autoethnographic account of conceptualizing, writing, and publishing a research article of an early career researcher (ECR) in India, through which it aims to show how outcomes of the peer-review process make an impact upon the minds of budding researchers.

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Introduction

Today almost all the reputed national and international journals use a peer-reviewing system, which is more than 300-year-old academic practice. It was believed to have started when the Royal Societies of Edinburgh and London in the early to mid-18th century began to seek the help of their members in selecting articles for publication (Kronick, 1990; Voight & Hoogenboom, 2012). The process of peer-reviewing was very unorganized during this period as everything depended upon the chief editor. The standardized peer-review system that we witness today emerged during the mid-20th century when the journal editors faced the problems of “proliferation of manuscripts” and the growing requirement of publishing materials backed by evidence. The explosion in information technology and the emergence of “areas of expertise” with more specialized and sophisticated knowledge, pushed editors to seek opinions and advice from these experts (Burnham, 1990).

Due to the aforementioned factors, journal editors started asking experts from a particular field of knowledge to read and provide their unbiased comments on the academic credibility and integrity of the submitted manuscripts before publication. And the system of peer reviewing has been in place since then— playing a crucial role in determining the quality of published materials which are widely read and cited by scholars across the globe. It would not be even flawed to claim that the peer-review process today is at the very heart of scientific progress, as grants are allocated, papers are published, academics are promoted, and Nobel prizes won all through the same method (Smith, 2006). Research and development enterprises around the world make an annual invests of \$2 trillion US dollars (USD) on peer reviewing (T.I.R. Institute, 2017) and produce more than 3 million research articles (Johnson et al., 2018). This shows the magnanimity and the importance of peer-review for research and development (Tennant & Ross-Hellauer, 2020).

However, despite having a fair and scientific outlook, the peer-review process is surrounded by several controversies and weaknesses (see Huisman & Smits, 2017; Silbiger & Stubler, 2019; Smith, 2006). Many consider it to be one of the “weakest links in the process of scientific knowledge production” (Huisman & Smits 2017, p. 634) because of inconsistencies and subjective choices involved with review comments (e.g., Smith, 2006), bias against the authors (e.g., Peters & Ceci, 1982), abuse of peer-review leading to stealing of original ideas (e.g., Rennie, 2003) and most importantly of the huge gap between the actual time requirement and sheer time wasted for evaluation of manuscripts (Ware & Mabe, 2015).

In this article, I portray my own experiences of writing an article, facing the peer-review, and eventually publishing it in an international journal as an early career researcher (ECR)¹. Here I provide intricate detail right from initial conceptualization to some of the content of a peer-review— in terms of exchanges between the authors and the editorial board members — with a view of explaining how outcomes of the peer-review process make an impact upon the minds of budding researchers. With an in-depth analysis of these intricate things, I try to assess whether the system of peer-reviewing plays a crucial role in shaping their perception towards research and academic writing in the future (Double et al., 2020). Because an autoethnography of peer-review process would certainly contribute to the debate surrounding the formative (e.g., McNair et al., 2019; Merga, 2015; van Zundert et al., 2010) and disruptive (e.g., Baron, 1988; Silbiger & Stubler, 2019) effects of the peer-review process. Understanding of which has become increasingly important within “disintermediated,” “information-rich,” “publish-or-perish” kind of academic environment in an open digital era (Rodríguez-Bravo et al., 2017).

Methods

Unlike some of the articles that depict an overall scenario of how ECRs face peer-reviews, I use autoethnography (Reed-Danahay, 1997) that completely rely upon my own understanding and self-emancipation. I have drawn direct influence from the works of Holt (2003), Dashper (2015) and Merga, Mason, and Morris (2018), who are very much part of the movement that we now know as the “moment of experimental writing” within qualitative research tradition (Denzin & Lincoln, 1994, 2000). Despite many limitations (Coffey, 1999; Sparkes, 2000), I use autoethnography in this article primarily because this method presents the scope of peeling back the “multiple layers of consciousness,” implicit within my own experience of conceiving, writing, and publishing; where I act both as a “researcher” and as a “object of study” (Ellis & Bochner, 2003, p. 209). And this provides a perfect opportunity for portraying an in-depth understanding of the impact the peer-review process makes on the perception of the researchers.

This study doesn’t involve data fetched through traditional ethnographic means. Instead, the entire narrative of my coming back into the Department of Anthropology, University of Calcutta, starting as a Research Fellow, identification of research problem, writing, facing the peer-review and eventually publishing the research article in an international platform has been constructed from multiple raw versions of draft manuscripts that were lying within the hard-drive of my desktop, my recapitulation of important events and most importantly the electronic communications with the journal editorial offices.

In this article, I depict my autoethnographic experience of conceiving, writing, and publishing a research article much like Holt (2003) and Dashper (2015). However, there are

¹ ECR can be broadly defined as researchers who are below 35 years of age, who either have received their doctorate or are currently doing a doctorate. In neither case are the researchers in established or tenured positions (see Rodríguez-Bravo et al., 2017, p. 270).

differences. First and foremost, while conceptualizing the research article for the very first time, about which I am writing in this article, I didn't have any idea about autoethnography. The idea of the autoethnographic method came along the way while reading and rereading methodological texts. In this way, this article is much closer to Dashper's (2015) account. But this article has limited scope as it does not deal with "transformative" potential and ethical consideration of writing and publishing an autoethnography. Instead, I present my own experiences in chronological order through thematic sections like — conceptualization, using autoethnography, selection of journals for communication, lengthy peer-review, withdrawal, and reframing and finally acceptance, publication and beyond.

The Story of Writing and Publishing a Research Article

It all started when I returned to the Department of Anthropology University of Calcutta after securing the UGC-NET fellowship in the National Eligibility Test (NET) Examination conducted in June 2007. My second stint in the Department as a Research-Fellow started in February 2008. I joined under Professor Gopalkrishna Chakrabarti who was my mentor during my M.Sc. dissertation. Dr. Arnab Das was my co-supervisor.

I needed to submit a proposal with which I could start Ph.D. fieldwork. It was tough to choose as a lot of ideas came into my mind and went away. I was really in a quandary regarding what to do and how to proceed. On one such evening, I was talking to Dr. Arnab Das about my experience as a sales representative where I have worked for a multinational pharmaceutical company for six months just before my joining as a Research Fellow in the Department. Hearing this Dr. Das asked me, "why don't you write about it in a form of an article?" Initially, I thought he was probably kidding as he was very kind and accommodating towards all the students. I said, "sir you couldn't be serious, what anthropological contribution my experience of being a trainee sales representative in a pharmaceutical company would make? And how generalization could be made from my own subjective experience of a phenomenon?" Dr. Das just smiled at me and asked me to "read."

Conceptualization: Initial Ideas and Theoretical Readings

I started searching for the literature on medical anthropology and its relationship with the pharmaceutical business. Initially, I could not find out much, especially regarding "pharmaceutical anthropology" or "critical medical anthropology" (e.g., Singer, 2004; Van der Geest et al., 1996) with which our research was directly connected. Rather I found pieces of literature on pharmaceutical sales and marketing (Oldani, 2004), physician-pharmaceutical industry relationship (Campbell et al., 2007), its impact on the knowledge, attitudes, and behaviour of physicians (Sierles et al., 2005; Wazana, 2000).

While reading this kind of literature which primarily concentrated on the transaction of pharmaceuticals and its relations with the doctors, the first thing I found out is that there have been concerns regarding both the positive and negative impact of this sort of relationship (Campbell et al., 2007, p. 1743). Undoubtedly, continuing medical education (CME) plays an important role in updating the knowledge of doctors regarding the new pharmacological inventions for better treatment (Blumenthal, 2004; Coyle, 2002; Holmer, 2001). But these relationships are also surrounded by the controversies of (i) pharmaceutical companies in teaching pharmacology to medical students (Brodkey, 2005) and (ii) doctors receiving "regular gifts," "free meal," and "free holiday packages" as part of a pharmaceutical promotion (Wazana, 2000), which at times resulted in problematic changes in prescription behaviours (see Brennan et al., 2006; Reekie, 1970).

The second striking thing that I have managed to find out is that the inferences in most of the studies were not drawn from qualitative experiences as commonly done in ethnographic endeavours. Hence, I thought it would be a perfect opportunity for me to provide a first-hand, qualitative, and in-depth perspective of my own experiences of sales and marketing, and the socialization process of getting accustomed to the corporate sales practices. Because this would help us in negating what Cerf (2007) points out as a contradiction of result between “what physicians say they do, in a formal marketing research interview setting, and the reality of what they actually do when observed in a more natural setting,” apart from the opportunity of reflecting about the culture, values, practices and social settings of a pharmaceutical organization in India.

With these initial ideas, I started writing. Writing my own experiences as a trainee sales representative came quite naturally and fluently to me, as memories were quite fresh back then. I depicted them through broad thematic sections like “entry and training,” “the business nexus,” “role and requirement of sales representative,” “relations and strategies,” “sales, target, performance and achievement.” But, putting those experiences within a broader context and bringing out something meaningful from it was a challenge at that time. Despite those initial ideas, I felt the necessity of having a firm anthropological grounding of our work for acceptance by the wider fraternity. It was only during the review process I started extensive reading of the literature on pharmaceutical anthropology (e.g., Bode, 2006; van der Geest, 1991; van der Geest, 2006), drug-reps, big-pharma, and the Indian scenario (Joshi 2003) to understand the wider political-economic implications of my experiences. It opened a whole new horizon.

However, this was not the only problem that I encountered. My experiences were written in first person throughout. I was also constantly moving back and forth between my role as a researcher and a respondent. As a researcher I felt like I was submerged within the “epistemological and ontological nexus” upon which the entire research is heavily reliant (Spry, 2001, p. 711). Questions regarding my positionality within this research led me to believe that it is something beyond which Creswell (2002) defined as “a narrative study of an individual’s personal experience”. Precisely, this is not the norm in traditional mainstream anthropological ethnographies. The norm is to write descriptions of place and event in an impersonal and passive manner where the observer (researcher) writes in a manner where he/she himself/herself remain absent within writing. Therefore, I had to search for methodological texts all over again to find out suitable references corresponding to my style of writing. And eventually, I found one.

Using Autoethnography as a Method: Naivety and Amateurishness

I found my glimmer of hope in “autoethnography” (see Reed-Danahay, 1997) — a method which, unlike the traditional ethnographic endeavours, provides researchers with an opportunity where he/she himself/herself can perform both the role of a researcher and the respondent. Often a researcher starts his/her analytical journey towards the “respondent self” by “peeling back of layers” (Ellis & Bochner, 2003) — where there is no rigidity or conformity about a particular way of data collection, as “memoirs” or “self-emancipation” is considered as legitimate.

It seemed to me as a perfect choice for both “depicting my own experiences as a trainee sales representative” as well as having a “slightly objective and analytical gauge” that any research requires to reach towards generalizations. To be honest, I was completely unaware of nuances and issues surrounding the acceptance of the autoethnographic methods, primarily because of my lack of exposure to works using the autoethnography. Hence, I was not able to justify the rationale behind our application of the autoethnographic method within

the written manuscripts. I was not able to explain how an autoethnographer's self-reflexive critique upon one's positionality as researcher inspires readers to reflect critically upon their own life experience, their constructions of self, and their interactions with others within sociohistorical contexts (Ellis & Bochner, 1996; Goodall, 1998; Spry, 2001, p. 711). My justifications sounded more as if methodological choice was taken as a convenience rather than out of any conviction that editors and peer-reviewers of international journals often look for.

Selection of Journals and Communication

My ideas were naïve and amateurish because of my lack of exposure to the world of research and academic writing. However, both my teachers, Dr. Gopalkrishna Chakrabarti and Dr. Arnab Das kept being persistent with me in this regard. I could only see their encouragement in giving me the liberty of writing freely and even choosing suitable journals for communication.

Our manuscript was not quite suitable for top-notch international journals like *Medical Anthropological Quarterly*, *Medical Anthropology*, *Anthropology and Medicine*, or *Social Science and Medicine*. Therefore, I made the obvious mistake of first considering those journals as probable platforms for submission where articles about the pharmaceutical industry-doctor relationships were published extensively. Much to my dismay, most of these journals hadn't had the scope of incorporating autoethnographic insights even though they had similar areas of interest. It taught me an important lesson about checking the methodological suitability of a journal as well before considering it for submission.

I had to take a very cautious approach in this regard after this incidence. It narrowed down the pool of journals of my choices to a considerable few which were open to the autoethnographic style of writing. The incidence shifted my focus from anthropological journals concerning health, disease, and treatment to journals of qualitative research and organizational culture. Reasons were quite clear, I thought probably journals of qualitative research or organization culture would be able to judge the merit of our manuscript properly. It was only during the later stages of peer-review my attention shifted towards interdisciplinary social science journals that were more lenient on issues of methodological choice.

Lengthy Peer-Review and Lack of Academic Acceptance

After a toil of more than one year or so, on 23rd April 2009, I finally sent our manuscript for consideration to a journal named *C and O*². The initial responses were smooth as our manuscript passed the initial stage of editorial screening.

The first review response came on 7th July 2009. The appended emailed response showed that both the reviewers have asked for major revision:

In my estimation, this paper needs some serious re-working in order to get it to the "next level" for publication in *C and O*. It could make a very valuable contribution to (critical) pharmaceutical studies. As I indicated to the editors – there is a need for some editorial help with clarity – it's unclear in spots because perhaps the English is not translating well from the original language, etc. (Reviewer 1)

² Abbreviation instead of the original name of the journal is used because of ethical concerns.

This paper deals with an interesting topic. However, because of stylistic reasons, I found it hard to follow what the author is really trying to convey through this paper. In its present format, the paper suffers from a number of problems that would require the author/s to make significant revisions -- in order for the manuscript to be acceptable for publication in *C and O* or any other international journal. (Reviewer 2)

For both reviewers, written English was a cause of concern. The criticism by Reviewer 1, however, was much more constructive. Reviewer 1 had identified the problem areas within the manuscript. He/she had taken the toil of reading and suggesting suitable texts for contextualizing some of our findings within the wider context:

...The authors could see the February 2009, issue of "Transcultural Psychiatry" for two articles (by Ecks and Sushrut) that are dealing with the Indian context specifically. These are not about drug reps per se but offer a wider context. Ecks is dealing with generic Prozac prescribing and Sushrut with "pills and policy." Also, the 1996 Van der Geest, et al. piece the authors site has numerous examples of pharmaceutical ethnographies in the Indian context.

...The authors should read Lakoff's work on drug reps in Argentina – a chapter, in the cited work "Global Pharmaceuticals," ed. By Lakoff, Petryna and Kleinman. They could also read Carl Elliot's article on drug reps in the "Atlantic Monthly" from 2006 – "The real drug pushers," lastly, they cite Oldani (2004) and perhaps could find some comparisons with their work – "feedback loops" between drug reps, corporate, and managers, etc. in that same article. Also, Oldani (2004) in Kroeber Society Papers (Tales from the Script) discusses at length the drug rep as "trickster" – which again could be used to think about the US/Indian context and various selling tricks.

... Also, K. Applbaum's (UW-Milwaukee) work on marketing might be useful here. Both his book – "The Marketing Era" and perhaps more so, a recent article – "Getting to Yes" in *Cult. Med. And Psych.* Will give insights into the structure of current marketing processes. Lastly, for history of drug reps, see Jeremy Greene's work "Prescribing by Numbers" – the index will take you to important sections on drug rep activity in the 50s, 60s, and 70s in the US.

The criticism by Reviewer 2 on the other hand was something that I was not expecting. And it is precisely at this point I started to understand the implications of my naivety in loosely writing methodological statements which compel him/her to write:

It is obvious that this paper is about post-hoc reflections of an individual who worked with a pharmaceutical company in India as a medical representative for about six months. Clearly, the author had not set out to do an ethnographic study about the med rep culture. The paper therefore represents the author's reminiscing of life experiences, reflections on being a medical representative, the challenges, and the ethical dilemmas that he/she faced during the training period and thereafter. As such, this is NOT an ethnographic endeavour in the anthropological or sociological sense of the term, but an exercise in

reminiscing, reflecting upon and articulating one's experiences in a given context and attempting to theorize and generalize those experiences. That said, there is no evidence in the manuscript that the narrative was dialogically produced – or that the narrative was co-constructed with two other persons who are apparently the co-authors of this manuscript. I strongly suggest that this manuscript should be single-authored; there is no place for co-authors, at least in its present format.

Revisions took more than four months. I searched and found out most of the literature suggested by Reviewer 1. Reading of works by Ecks and Basu (2009) and Jain and Jadhav (2009) really helped. It helped me to grasp the entire picture in terms of how globalization impacted the use of pharmaceuticals and the biosocial journey of a specific pill from policymakers in Delhi to patients in a village in the state of Uttar Pradesh respectively. Works like that of Kamat and Nichter (1997) and Kamat and Nichter (1998) were helpful for an understanding of the pharmaceutical industry-intermediary relationship, the Indian context especially. Meanwhile, works like Kamat (1995) and Jayaraman (1986) were key to understanding the coherent trend of “pharmaceuticalization” and “commodification” of India's healthcare facilities. All of these helped to put things in context.

As expected, we detailed, much more than what we did in the initial draft. We added diagrams to provide more clarity about the interaction of drug-reps and how that is related to the pharmaceutical organization in India. However, it is at this point I started to realize that we would be requiring much more than mere contextualization of our findings. It was evident that the draft would also require both contextual and language editing. Besides, critical comments provided by Reviewer 2 were quite crucial which we needed to fix before resubmission. The rationale based on which Reviewer 2 claimed that our paper was a “post-hoc reflections of an individual” and “not an ethnographic endeavour in the anthropological or sociological sense” clearly indicated about requirement of reading and citing important methodological references within the revised manuscript. But Reviewer 2's strong suggestion that “this manuscript should be single-authored” as there was “no evidence in the manuscript that the narrative was dialogically produced – or that the narrative was co-constructed with two other persons who are apparently the co-authors of this manuscript” put us in a dilemma regarding the authorship.

We failed to explain how and for what reasons the narrative was co-constructed. However, we decided not to make any change in authorship in the middle of a review process. Instead of showing clear advantages of (i) having “varying perspectives that leads to trustworthiness,” (ii) moving “backwards, forwards, and sideways from reading individual narratives and the responses that have been written into them,” (iii) “talking, and theorizing and analyzing the narratives through writing collaboratively” (Coia & Taylor, 2009, p. 15), we simply tried to address the issues by explaining “how the first author's position is shared with other two authors” and “what role the other two authors played in this research.” We finally resubmitted the revised draft on 4th November 2009.

We received the second review response on 11th January 2010. In the mailed response, the editor highlighted some key areas for further revision. The language was one of the key concerns including some routine suggestions regarding the journal's stylistic guideline on the use of italics and footnotes. The editor wrote, “I appreciate the changes will require a lot of work however I regard them as fairly minor and look forward to receiving your resubmission” and all of which sounded routine and simple.

Response from Reviewer 1 was much more positive compared to what was suggested earlier, as he/she gave full marks for “originality,” “quality of research,” and “appropriateness” of the revised manuscript for said journal. However, clarity of exposition

remained as one of the major concerns. In his/her own words "...The only problem that persists is clarity because, usage, grammar, tense, etc. is off the mark throughout the article." Reviewer 1 suggested to take the help of a professional editor in this regard. He/she also provided another important suggestion:

I do hope you publish it – I think the authors were extremely diligent in fixing and/or addressing all the major concerns by previous reviewers. I would add one final thing: the authors should CHANGE the TITLE, or at least alter it slightly – it's not really a paper about "performance," and performance theory is not elaborated on. Instead, a title like "The tricks and Truths of becoming an Indian Drug Rep: An auto-ethnography of corporate culture, pharmaceuticalization and Drug Industry ethics" seems more accurate. Performance, is important, but as it's discussed on pp. 16 to 17, it's really the "native" definition of (pharmaceutical) performance that is important. In other words, "sales performance" is what they are talking about, that is what is at stake for the rep – sell drugs or lose your job, which guides all their efforts and other daily performances.

However, Reviewer 2 despite our concerted effort was not convinced in many aspects including length, written English and most importantly authorship:

My recommendation is that the manuscript should not be accepted its present configuration. As a first step, the author should put the manuscript on a very strict diet and slash the length from some 14400 plus words (I don't know which journal today accepts manuscripts of this length!) to less than 8000 words MAX (same as Social Science and Medicine, or 6000 for Anthropology and Medicine). Second, the author should seek the help of a professional editor or a colleague to help him with making the manuscript more readable - the current manuscript still suffers from missing words, awkward sentences, and solecism. And finally, I for one am least convinced that this should be a multi-authored paper! The idea of inviting two co-authors to reach the jointly intended objective picture and to save it from gross self-indulgence" is not convincing.

We had an extremely hard time finding a professional editor as most of them were busy due to their heavy workload or assignments. To provide clarity and rectify grammatical mistakes, eventually we had to take the help of one of our colleagues who was more proficient in this regard. The suggestion of changing the title by Reviewer 1 was one of the most important ones. Hence, we changed the title of our article to "Tricks and Truths of Drug Marketing: An Insider's Experience on the Practices and Ethics in an Indian Pharmaceutical Organization" for more directness. However, we found the job of radically slashing the length down from 14400 plus to less than 8000 words as Reviewer 2 suggested to be a bit too difficult. We were able to reduce it to 9290 odd words only excluding notes reference keeping the actual feel of each subsection intact. And this resulted in a delay in the resubmission. We submitted the revision on the 8th of May 2010 where we stuck to our initial stand regarding authorship. We wrote:

...the "multiple layers of consciousness" implicit within the first author's experience as both "researcher" and as an "object of study" led the study to share role of an "ethnographer" with two other authors. Here the experience of

two other authors in other economic and social fields (those do not come under the purview of the present article) of the city have been discussed and shared with the first author for the proper portrayal practices and exchanges around pharmaceuticals.

The third review response came during the end of July 2010, stating about the issue of authorship and the same suggestion of language editing and then resubmission.

Withdrawal and Reframing: From Autoethnography to Co-Construction

It was frustrating for me who had little experience of the review process. By then I had invested more than a year without any success. Even my teachers, who were my co-authors in this manuscript, were getting frustrated. And I could clearly sense it. We were trying our best to make the manuscript more readable but somehow, we're not able to reach the expected standard of written English that the journal was looking for. Finally, after considering all the aspects we decided to withdraw our manuscript from *C and O*. I wrote to the journal on the 26th of August 2010 saying:

I personally would like to apologize for the delayed response. Regarding the resubmission of the manuscript, you specifically have emphasized this manuscript to be a single author instead of multiple-authored work. Even you have recommended us to seek the help of online professional editing service which we could not be able to do because of some technical problems. Thus, looking at your difficulties in providing the extensive copy editing there is hardly any justification of resubmitting of the manuscript in its present form. So, unfortunately, we would not be able to re-submit the manuscript any further.

We hoped that there must be journals which will take more lenient approach towards our written English. But the question of authorship was still lurking on our minds. With the hope of finding a solution, I decided to read new dimensions within autoethnographic writing. Much to my delight, I found one (Coia & Taylor, 2009, p. 11) which states:

We explore these lived experiences collaboratively with at least two researchers through the cyclical sequence of a variety of literacy practices including (a) writing, rewriting, and sharing personal narratives; (b) talk and discussion before and after the narratives are shared; (c) reflective writing and response; (d) reading theory, research, and other narratives; (e) more discussion and talk; (f) collaborative analysis through talk and writing; and finally, (g) writing up research through individually writing, talk, collaborative writing, talk, and collaborative editing.

Such a thorough step-by-step guidance regarding how to collaborate and co-construct autoethnographic experiences reassured us that we were on the right track. It was something that we were trying to address from the very onset. But it also made us realize that reviewer 2 was quite right regarding the absent methodological grounding in the earlier versions of our manuscript. We reframed the methodological part of our manuscript accordingly. After considering our previous experiences of journal selection and peer review process, we finally

submitted our manuscript to a general social science journal named *AJSS*³ on 6th October 2010.

The review response came in the month of April 2011. This time editorial decision went in our favour. The email from the editor contained lots of encouraging words from both the reviewers. We saw that both have recommended our manuscript for publication if we work on certain areas that they have pointed out. Reviewer B wrote:

I found this to be a strong paper. The work is original, it provides incredible, auto/ethnographic accounts of insider activity within Big Pharma, within India. I have not read as detailed an account of drug rep training - it would be a very solid and important contribution to the literature on drug reps, big pharma, and the globalization of pharmaceuticals in Asia. However, I make the following suggestions...

The suggestions were for incorporating a couple of references (Elliott, 2010; Lakoff, 2006) which we already received during peer review in *C and O*. We didn't cite them as we were not able to access them. We eventually got access by requesting one of my friends working in another institute to download and send them to me. I read and cited those which are in direct connection to our study.

Reviewer A, on the other hand, suggested for (i) "better integration of the first, intro part with the narrative," (ii) "some explanation of the nature of the case," (iii) "framing of the first-person narrative within a more precise context of interpretation. Are those experiences representative? Why?" Written English, much like the peer-reviewers in *C and O*, was a cause of concern for him/her. In his/her own words:

... the writing, especially in the first part of the paper, before the first-person narrative starts is well-below journal quality and would need extensive copy-editing just to meet the minimal standards of academic publishing...

We didn't hire anyone proficient in the English language rather chose to work our way out ourselves. We tried to write in as simpler language as possible, breaking longish sentences into two sometimes three separate ones. We have also tried to integrate the introductory section with the narrative to put things in perspective, reshuffled the narrative, added explanation, weeded unwanted detail to make it more streamlined and readable. We finally resubmitted on 27th June 2011.

Acceptance, Publication and Beyond

And at last, an email from the editorial office of *AJSS* came on 14th July 2011 saying:

We are pleased to inform you that we will be publishing your manuscript. However, the editors also have some concerns regarding the quality of the written English. As such, we ask if you could have the manuscript copyedited by a professional before submitting it to us again.

It was a matter of immense pleasure and satisfaction for a naïve Ph.D. student like me who up until then had no success at all. At the same time, I felt that now it becomes our responsibility to get our manuscript copy edited, that too within a short span of time. Because

³ Ibid.

of our previous experiences with English editing, I was not so keen on employing a person who would hardly understand the context of our research. There were two reasons for my reluctance: it had not worked out previously and I believed that the issue was not really about grammar, but about conveying my ideas clearly. Therefore, I had to seek the help of a person who could work with me alongside, whom I can explain what exactly I am trying to convey through each sentence, subsection, and section. Fortunately, I found one living in my neighbourhood who taught English to undergraduate students. He copy-edited very diligently, and the article finally got published towards the end of 2011.

By then, I was working on a completely different topic of “craft, culture and economy of handloom weavers in West Bengal” for my Ph.D. dissertation. The acceptance nonetheless has instilled a new belief and aspirations in me. It inspired me to write, write even more, on different topics and with different people than what I was doing before this publication. It prepared me for the type of hurdle any researcher faces and feels bad about. Most importantly it taught me an important lesson that persistence eventually pays off, as I saw in my own case in the following years (e.g., Banerjee, 2016; Banerjee & Chakrabarti, 2020; Banerjee et al., 2013; Banerjee et al., 2017; Makal et al., 2018; Polley et al., 2015).

Conclusion

It's true that much ink has been spent discussing the functionality of peer reviewing (Ross-Hellauer, 2017; Ross-Hellauer et al., 2017; Tennant et al., 2017). However, as Tennant and Ross-Hellauer (2020, pp. 1-14) rightly point out, that our understanding regarding peer reviewing will continue to remain skewed if researchers fail to explain (i) the role, responsibility and selection criteria based on which editor-in-chief or the managing editor of a journal rejects any manuscript during initial editorial screening or sent it out for external review, (ii) how many times in a year a peer-reviewer is asked to read and comment on a manuscript and whether this downgrades the quality of peer-reviewing (Fox et al., 2017; Gropp et al., 2017), (iii) credibility and competence of peer-reviewers, (iv) how reviewer's impartiality is affected by his/her nationality, prestige of institutional affiliation, gender, research discipline, life experiences, thinking style, workload pressures, psychography and most importantly the relationships between authors and reviewers (Lee et al., 2013), and (v) social and epistemic impacts of peer review in which the authors, editors, and reviewers all stand to gain from this learning experience.

This autoethnographic account of writing, facing a peer review and eventually publishing it as an ECR depicts only last of the aforementioned areas (i.e., social, and epistemic impacts) of peer review. It portrays the difficulties that the author faced while conceptualizing, writing, and coming across peer-review early in his career which eventually made the social and epistemic impact on his mind. Findings from several studies (e.g., Holt, 2003; Merga et al., 2018; Silbiger & Stubler, 2019) show that difficulties faced by the ECRs is not exclusive to Indian subcontinent only, rather quite common worldwide.

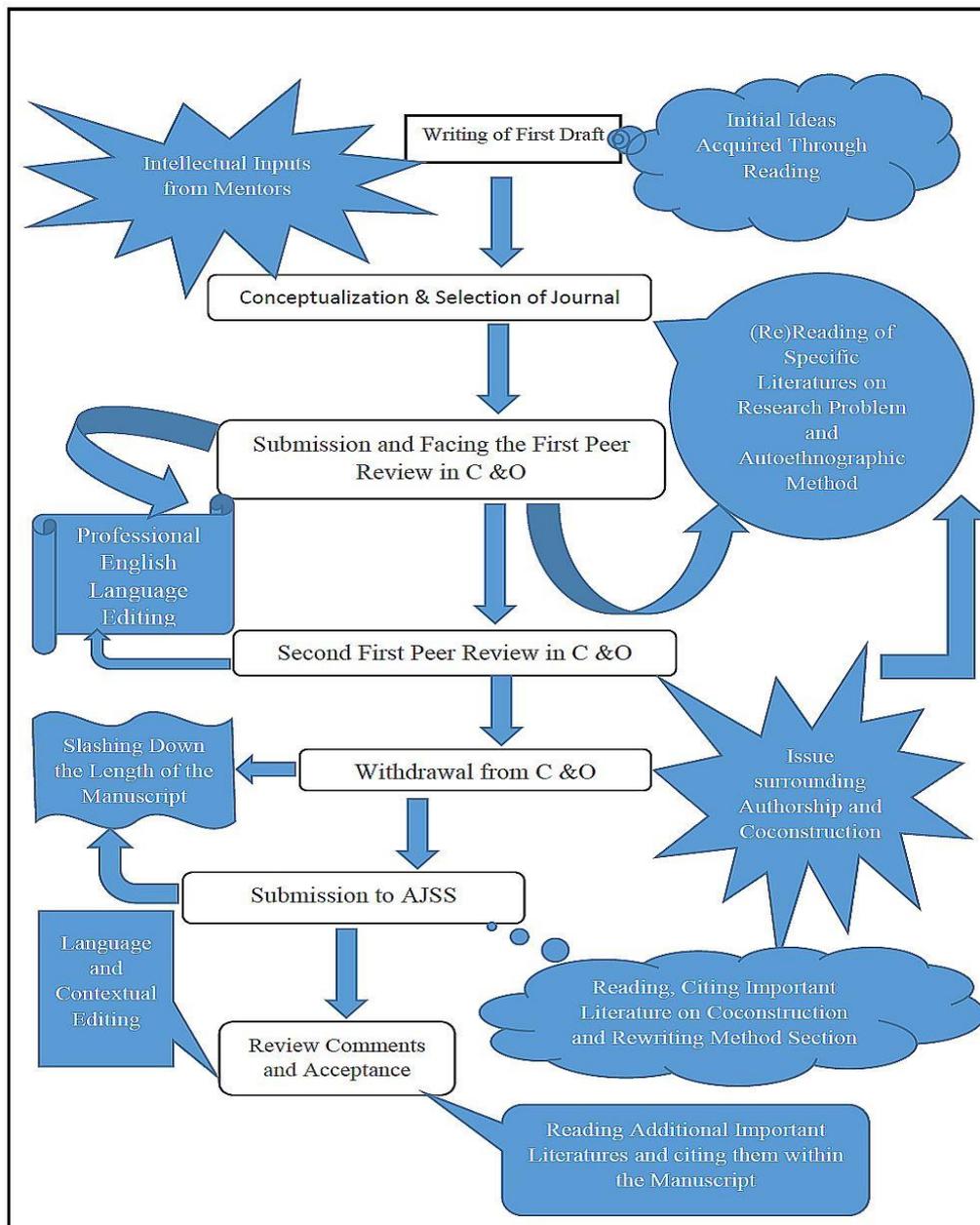
But author's autoethnographic account becomes even more important because it involves the journey of writing and facing the peer-review of a manuscript that was written on the practices of drug marketing within a pharmaceutical organization in India using autoethnography. The topic in itself was infrequently written about within the discipline of anthropology, leaving aside quite a separate challenge of publishing it as an autoethnography.

Findings show that the author because of his inexperience in the field of research and academic writing initially struggled due to the lack of ideas in conceptualizing the very research problem that he was intending to write. As a result, he failed to put things in context or to show the wider interconnections of the research problem within the written manuscript, which has been rightly pointed out by one of the reviewers during the first phase of peer-

review in *C and O*. Comments from reviewer 1 was constructive as it helped the author immensely to enrich his understanding regarding the scenario of drug marketing and pharmaceutical promotion in India and across the globe. Furthermore, the study shows how due to the lack of exposure to varied form of methodological texts, the author initially perceived the feedbacks from Reviewer 2 much like a general critique of autoethnography rather than being a specific concern related to the submitted manuscript. At least in the initial phases, it came across to him as a reflection of “orthodox” mind-set within the qualitative ethnographic tradition, which often resists change (Ellis & Bochner, 2000).

Figure 1

Overview of Author’s Experiences and Resolutions at Different Stages



In the later stages however, the author has able to identify how crucial these initial suggestions were. He worked on these critical issues suggested by this reviewer which eventually helped in the publication of this manuscript. And this is where the author has made

a wise choice by sticking to their chosen method of autoethnography despite quite harsh criticisms. No doubt criticisms of the autoethnographic method pushed him to read, read even more, but it eventually helped him to counter the comments provided in reviews. Most importantly the author has able to pick and choose important suggestions to work on and shrug off the “subjective,” “personal,” and sometimes “unprofessional” ones (Silbiger & Stubler, 2019; Smith, 2006), otherwise may have faced problems like self-doubt (Baron, 1988), negative impacts on productivity (Kahn & Scott, 1997) and career advancement (Howe-Walsh & Turnbull, 2014).

Finally, this study shows that the process of peer-review, despite being extremely lengthy, tiresome, and frustrating at times, taught the author some important lessons which he could not have learnt through any formal training. It shows that as an ECR the author has able to learn through the best possible means (i.e., by facing the peer-reviews). Keeping composure throughout the entire period in an unpaid model of peer-review where the authors had to invest huge amount of time writing, rewriting, and publishing the manuscript is an important lesson. Bearing the cost of peer-reviewing and posting through the “open access” model might have sped up the entire thing. But his reason for not doing so was connected to the amount of faith that the scientific community puts in the unpaid system of peer-reviewing, where the work of those bearing the cost is considered ineffective (Smith, 2006). Reading of relevant literature, for example, is another important lesson. It helped in the development of overall knowledge just as much as it did in contextualizing some of the findings within the broader perspective. Comments on written English, is another important lesson which helped in gauging the importance of the knowing the requirements of academic writing and acquiring a skill of copy-editing just as the decision of withdrawing and submitting to another platform did in understanding the suitability of a particular manuscript for a journal. All of which later made a huge impact on his outlook towards research and academic writing. This corresponds to the finding of the studies (e.g., McNair et al., 2019; Merga, 2015; van Zundert et al., 2010) which advocate for the formative role that peer-reviewing plays in the career of the naïve researchers.

References

- Banerjee, A. (2016). Understanding some of the key factors responsible for transformation within an Indian cotton weaving tradition. *Asian Journal of Social Science*, 44(4-5), 571-599.
- Banerjee, A., & Chakrabarti, G. K. (2020). Exploring the effects of globalization on silk weaving tradition of Bishnupur region in West Bengal, India. *The Oriental Anthropologist*, 20(1), 60-81.
- Banerjee, A., Chakrabarti, G. K., & Das, A. (2013). A new beginning in medical anthropology: Scope and relevance of pharmaceutical anthropology in India. *Eurasian Journal of Anthropology*, 4(2), 51-57.
- Banerjee, A., Polley, K., Makal, A., & Das, B. M. (2017). The insiders' experience of an undergraduate level ethnographic fieldwork training in India. *The Qualitative Report*, 22(8), 2308-2330. <https://doi.org/10.46743/2160-3715/2017.2501>
- Baron, R. A. (1988). Negative effects of destructive criticism: Impact on conflict, self-efficacy, and task performance. *Journal of Applied Psychology*, 73(2), 199-207.
- Blumenthal, D. (2004). Doctors and drug companies. *New England Journal of Medicine*, 351, 1885-1890.
- Bode, M. (2006). Taking traditional knowledge to the market: The commoditization of Indian medicine. *Anthropology & Medicine*, 13(3), 225-236.
- Brennan, T. A., Rothman, D. J., & Blank, L. (2006). Health industry practices that create

- conflicts of interest: A policy proposal for academic medical centers. *Journal of American Medical Association*, 295(4), 429-433.
- Brodkey, A. C. (2005). The role of the pharmaceutical industry in teaching psychopharmacology: A growing problem. *Academic Psychiatry*, 29(2), 222–229.
- Burnham, J. C. (1990). The evolution of editorial peer review. *JAMA*, 263, 1323-1329.
- Campbell, E. G., Gruen, R. L., Mountford, J., Miller, L. G., Cleary P. D., & Blumenthal, D. (2007). A national survey of physician–industry relationships. *New England Journal of Medicine*, 356(11), 1742-1750.
- Cerf, B. J. (2007, March 1). A day in the life of your customer. *Medical Marketing and Media*. <https://students-residents.aamc.org/premed-navigator/day-life-medical-student>
- Coffey, P. (1999). *The ethnographic self*. Sage.
- Coia, L., & Taylor, M. (2009). Co/autoethnography: Exploring our teaching selves collaboratively. In D. Tidwell, M. Heston, & L. Fitzgerald (Eds.), *Research methods for the self-study of practice, self-study of teaching and teacher education practices* (pp. 1-15). Springer.
- Coyle, S. L. (2002). Physician–industry relations, part 2: Organizational issues. *Annals of International Medicine*, 136, 403-406.
- Creswell, J. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Merrill Prentice Hall.
- Dasher, K. (2015). Revise, resubmit and reveal? An autoethnographer’s story of facing the challenges of revealing the self through. *Current Sociology*, 63(4), 511–527.
- Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1-17). Sage.
- Denzin, N. K., & Lincoln, Y. S. (2000). The policies and practices of interpretation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 897-992). Sage.
- Double, K. S., McGrane, J. A., & Hopfenbeck, T. N. (2020). The impact of peer assessment on academic performance: A meta-analysis of control group studies. *Educational Psychology Review*, 32(2), 481–509
- Ecks, S., & Basu, S. (2009). The unlicensed lives of antidepressants in India: Generic drugs, unqualified practitioners, and floating prescriptions. *Transcultural Psychiatry*, 46(1), 86-106.
- Elliott, C. (2010). *White coat black hat*. Boston Massachusetts: Beacon Press.
- Ellis, C., & Bochner, A. (2000). Autoethnography, personal narrative, reflexivity: Researcher as subject. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 733-768). Sage.
- Ellis, C., & Bochner, A. P. (2003). Autoethnography, personal narrative, reflexivity: Researcher as subjects. In N. Denzin & Y. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (2nd ed., pp. 199-258). Sage Publication.
- Fox, C. W., Albert, A. Y. K., & Vines, T. H. (2017). Recruitment of reviewers is becoming harder at some journals: A test of the influence of reviewer fatigue at six journals in ecology and evolution. *Research Integrity Peer Review*, 2(3). <https://doi.org/10.1186/s41073-017-0027-x>.
- Goodall, Jr., H. L. (1998). Notes for the autoethnography and autobiography panel NCA. A paper presented at the National Communication Association Convention in New York City.
- Gropp, R. E., Glisson, S., Gallo, S., & Thompson, L. (2017). Peer review: A system under stress. *BioScience*, 67(5), 407–410.
- Holmer, A. F. (2001). Industry strongly supports continuing medical education. *JAMA*,

- 285(15), 2012-2014.
- Holt, N. L. (2003). Representation, legitimation, and autoethnography: An autoethnographic writing story. *International Journal of Qualitative Methods*, 2(1), 18-28.
- Howe-Walsh, L., & Turnbull, S. (2014). Barriers to women leaders in academia: Tales from science and technology. *Studies in Higher Education*, 41(3), 415-428.
- Huisman, J., & Smits, J. (2017). Duration and quality of the peer review process: The author's perspective. *Scientometrics*, 113(1), 633-650.
- Jain, S., & Jadav, S. (2009). Pills that swallow policy: Clinical ethnography of a community mental health program in northern India. *Transcultural Psychiatry*, 46(1), 60-85.
- Jayaraman, K. (1986). Drug policy: Playing down main issues. *Economic and Political Weekly*, XXI(5), 1129-1132.
- Johnson, R., Watkinson, A., & Mabe, M. (2018). *The STM report: An overview of scientific and scholarly publishing*. STM: International Association of Scientific, Technical and Medical Publishers. [2018_10_04_STM_Report_2018.pdf \(stm-assoc.org\)](https://stm-assoc.org/2018_10_04_STM_Report_2018.pdf)
- Joshi, H. N. (2003). Analysis of the Indian Pharmaceutical Industry with emphasis on opportunities in 2005. *Pharmaceutical technology*, 27, 74-94
- Kahn, J. H., & Scott, N. A. (1997). Predictors of research productivity and science-related career goals among counseling psychology doctoral students. *Counseling Psychologist*, 25(1), 38-67.
- Kamat, V. R. (1995). Reconsidering the popularity of primary health centers in India: A case study from rural Maharashtra. *Social Science & Medicine*, 41(1), 87-98.
- Kamat, V. R., & Nichter, M. (1997). Monitoring product movement: Pharmaceutical sales representatives in Bombay, India. In S. Bennet, B. McPhake, & A. Mills (Eds.), *Private health providers in developing countries: Serving the public interest?* (pp. 124-140). Zed Press.
- Kamat, V. R., & Nichter, M. (1998). Pharmacies, self-medication and pharmaceutical marketing in Bombay, India. *Social Science & Medicine*, 47(6), 779-794.
- Kronick, D. A. (1990). Peer review in 18th century scientific journalism. *JAMA*, 263(10), 1321-1322.
- Lakoff, A. (2006). *Pharmaceutical reasons: Knowledge and value in global psychiatry*. Cambridge University Press.
- Lee, C. J., Sugimoto, C. R., Zhang, G., & Cronin, B. (2013). Bias in peer review. *Journal of the American Society for Information Science and Technology*, 64(1), 2-17.
- Makal, A., Banerjee, A., Polley, K., & Das, B. M. (2018). Continuity and change among Koras of Bindukata: An ethnographic re-analysis. *Asian Journal of Social Science*, 46(1-2), 52-78.
- McNair, R., Le Phuong, H. A., Cseri, L., & Szekely, G. (2019). Peer review of manuscripts: A valuable yet neglected educational tool for early-career researchers. *Education Research International*, 2019, 1-9. <https://doi.org/10.1155/2019/1359362>
- Merga, M. K. (2015). Thesis by publication in education: An autoethnographic perspective for educational researchers. *Issues in Educational Research*, 25(2), 291-308.
- Merga, M. K., Mason, S., & Morris, J. (2018). Early career experiences of navigating journal article publication: Lessons learned using an autoethnographic approach. *Learned Publishing*, 81(4), 381-389.
- Oldani, M. J. (2004). Thick prescriptions: Toward an interpretation of pharmaceutical sales practices. *Medical Anthropology Quarterly*, 18(3), 325-356.
- Peters, D., & Ceci, S. (1982). Peer-review practices of psychological journals: The fate of submitted articles, submitted again. *Behavioral Brain Sciences*, 5(2), 187-255
- Polley, K., Banerjee, A., & Makal, A. (2015). Relations between rock art and ritual practice: A case study from eastern India. *Archaeological Research in Asia*, 3, 34-48.

- Reed-Danahay, D. (1997). *Auto/ethnography*. Berg.
- Reekie, W. D. (1970). Some problems associated with the marketing of ethical pharmaceutical products. *The Journal of Industrial Economics*, 19(1), 33-49.
- Rennie, D. (2003). Misconduct and journal peer review. In F. Godlee & T. Jefferson (Eds.), *Peer review in health sciences* (2nd ed., pp. 118–29). BMJ Books.
- Rodríguez-Bravo, B., Nicholas, D., Herman, E., Boukacem-Zeghmouri, C., Watkinson, A., Xu, J., Abrizah, A., & Świgon, M. (2017). Peer review: The experience and views of early career researchers. *Learned Publishing*, 30, 269–277. DOI: 10.1002/leap.1111
- Ross-Hellauer, T. (2017). What is open peer review? A systematic review. *F1000Research*, 6, 588. <https://doi.org/10.12688/f1000research.11369.2>
- Ross-Hellauer, T., Deppe, A., & Schmidt, B. (2017). Survey on open peer review: Attitudes and experience amongst editors, authors and reviewers. *PLOS ONE*, 12(12), e0189311.
- Sierles, F. S., Brodkey, A. C., & Cleary, L. M. (2005). Medical students' exposure to and attitude about drug company interactions: A national survey. *Journal of American Medical Association*, 294(9), 1034-1042.
- Silbiger, N. J., & Stubler, A. D. (2019). Unprofessional peer reviews disproportionately harm underrepresented groups in STEM. *PeerJ*, 7, e8247. DOI: 10.7717/peerj.8247.
- Singer, M. (2004). Critical medical anthropology. In C. R. Ember & M. Ember (Eds.), *Encyclopaedia of medical anthropology: Health and issues in world's culture* (Vol. 1; pp. 23-30). Kluwer Academic/Plenum Publishers.
- Smith, R. (2006). Peer review: A flawed process at the heart of science and journals. *Journal of the Royal Society of Medicine*, 99(4), 178–182.
- Sparkes, A. C. (2000). Autoethnography and narratives of self: Reflections on criteria in action. *Sociology of Sport Journal*, 17(1), 21-41.
- Spry, T. (2001). Performing autoethnography: An embodied methodological praxis. *Qualitative Inquiry*, 7(6), 706-732.
- Tennant, J. P., Dugan, J. M., Graziotin, D., Jacques, D. C., Waldner, F., Mietchen, D., Elkhatib, Y., Collister, L. B., Pikas, C. K., Crick, T., Masuzzo, P., Caravaggi, A., Berg, D. R., Niemeyer, K. E., Ross-Hellauer, T., Mannheimer, S., Rigling, L., Katz, D. S., Tzovaras, B. G., ... & Colomb, J. (2017). A multi-disciplinary perspective on emergent and future innovations in peer review. *F1000Research*, 6, 1151.
- Tennant, J. P., & Ross-Hellauer, T. (2020). The limitations to our understanding of peer review. *Research Integrity and Peer Review*, 5(6). <https://doi.org/10.1186/s41073-02000092-1>
- T.I.R. Institute. (2017). R&D trends forecast: Results from the industrial research institute's annual survey. *Research Technology and Management*, 60, 18–25.
- Van der Geest, S. (1991). Pharmaceutical anthropology: Perspective for research and Application. In S. Van-der-Geest & W. R. White (Eds.), *The context of medicine in developing countries: Studies in pharmaceutical anthropology* (pp. 329-366). Het Spinhuis Publishers.
- Van der Geest, S., Whyte, S. R., & Hardon, A. (1996). The anthropology of pharmaceuticals: A biographical approach. *Annual Review of Anthropology*, 25, 153-178.
- Van der Geest, S. (2006). Anthropology of pharmaceutical nexus. *Anthropological Quarterly*, 79(2), 303-314.
- van Zundert, M., Sluijsmans, D., & van Merriënboer, J. (2010). Effective peer assessment processes: Research findings and future directions. *Learning and Instruction*, 20(4), 270–279.
- Voight, M. L., & Hoogenboom, B. (2012). Publishing your work in a journal: Understanding the peer review process. *The International Journal of Sports Physical Therapy*, 7(5),

452-460.

Ware, M., & Mabe, M. (2015). *The STM report: An overview of scientific and scholarly journal publishing*. STM: International Association of Scientific, Technical and Medical Publishers. http://www.stmassoc.org/2012_12_11_STM_Report_2012.pdf

Wazana, A. (2000). Physicians and the pharmaceutical industry: Is a gift ever just a gift? *Journal of American Medical Association*, 283(3), 373-380.

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Author Note

Abhradip Banerjee, Msc, PhD in Anthropology work as an Assistant Professor of Anthropology at Government General Degree College, Singur, Hooghly, India. He specializes in Social-Cultural Anthropology and his research interests include Indian Handloom Industry, Economic Anthropology, Pharmaceutical Anthropology, Material Culture. He has published several research articles in journals of both national and international repute. Email: abhraanthro@gmail.com/banerjeeabhradip@yahoo.com

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