An Academic Text as a Perceived Barrier to Practising Interdisciplinary Research

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Introduction

Over the past few decades a large number of studies have been devoted to obstacles faced by scholars who wish to adopt an interdisciplinary approach. A prevailing number of these studies have concerned themselves with so-called institutional barriers to interdisciplinarity. In many such cases, a considerable amount of attention has also been devoted to the negative consequences of 'turning interdisciplinary', such as the difficulties in getting a post (Asimov, 1980; Bechtel, 1986; Nissani, 1997; Powers, 2008), problems with obtaining tenure (Augsburg, 2006; Birnbaum, 1981; Carp, 2008; Hurst, 1992; Nilles, 1976; Rhoten and Parker, 2004; Rijnsover and Hessels, 2011), or problems with having one's work published and/or having it evaluated solely in terms of whether the author has made a contribution to science and not whether s/he used an approach approved of by the reviewer(s) (Campbell, 2005; Daily and Ehrlich, 1999; Feller, 2006; Huutoniemi, 2012; Lamont and Huutoniemi, 2011; Naiman, 1999; Picket *et al.*, 1999; Porter and Rossini, 1985; Rafols *et al.*, 2012; Ryff and Singer, 2008; Turner and Carpenter, 1999).

In addition to discussing the consequences of disciplinary gatekeeping, quite a few works concerned themselves with texts *via* which researchers communicate. This research resulted in isolating an additional barrier to interdisciplinarity: the 'language

barrier', as it is collectively called. Among elements that may negatively affect comprehension of texts produced outside one's own disciplinary boundaries, one finds the specialist terminology and/or different constitutive metaphors specific for a field (Becher, 1989; Borego and Newswander, 2010; Bracken and Oughton, 2006; Campbell, 2005; Hayes, 1992; Hyland and Tse, 2007; King and Brownell, 1976; Klein, 1990; Kuhn, 1977; Lattuca, 2001; Shanahan, Shanahan and Misischia, 2006; Wear 1999), the publications' organization and structure (Ahmad, 1997; Clyne, 1987; Fakhri, 2009; Melander, Swales and Fredrickson, 1997; Nwogu, 1997; Posteguillo, 1999; Samraj, 2005; Swales and Najjar, 1987; Taylor and Tinguang, 1991) as well as specific features (e.g. digressiveness) that characterize contributions written in different 'intellectual styles' (Duszak, 1997). Such elements, explained in terms of national or disciplinary preferences (or both) hamper communication among members of interdisciplinary research teams. Those working on their own and not part of some interdisciplinary research environment also consistently report that such features make the processing of academic literature a challenging task, expanding the list of the difficulties with elements such as inscriptions (Bowen and Roth, 2002; Leinhardt *et al.* 1990; Schnotz, 1993) or quantitative data in general (Mayer and Jackson, 2005).

Informal exchanges I had with both my colleagues and graduate students I have been teaching confirm that their own attempts to learn more about how the issue or the phenomenon in question is viewed by those representing other disciplinary emphases is, indeed, often hindered by what they find in the texts they had decided to consult. However, as they confess, the elements highlighted above

and/or the textual norms in general are not their only problem. This study capitalizes on their experiences, with its major goal to determine what precisely they may have meant when they were pointing at the difficulties they were experiencing: difficulties that, to the best of my knowledge, have not been given sufficient attention, at least not in works discussing a text's capability to inspire interdisciplinary collaboration. Such individual, highly idiosyncratic stories have long been appreciated for their ability to illuminate (or complement) the literature (or both), even though the conclusions extracted from them may not be generalizable.

As for the project's structure, in Chapter One, titled 'Setting the scene', I present the methodological underpinnings of my approach, starting with a brief overview of the concept of interdisciplinarity, especially the consequences that those who would like (or have) to work in the interdisciplinary paradigm should be prepared for. Next, I follow with an overview of a number of studies that confirm that processing the literature produced by scholars representing other disciplinary milieus may be a problem. The chapter ends with a brief presentation of work carried out within my major area of specialization, dictionary research,[1] a discourse community that was once confronted with a similar problem, with special attention devoted to measures taken in order to learn more about

[1] Since this is not a work in lexicography, the literature review conducted in this section will entail only those works which, firstly, are useful in marking out the intellectual position I am aligning with (i.e. that one and the same text may, simultaneously, perform a variety of functions, from which it follows that the information a text contains affects the text recipient's willingness to act in a certain way, the latter associated with a text's conative function) and, secondly, which have a concrete bearing on the present research design.

what makes the prototypical text type produced within this branch – a dictionary – so difficult for those this text is produced for: dictionary users.

Chapter Two starts with a methodology section, in which I first introduce the individuals who agreed to serve as my informants and briefly describe the problem they encountered while processing texts that had been written outside the research area – research into creativity in language – they had originally chosen for their doctoral research. I also discuss the circumstances in which they decide to move across disciplinary boundaries into a field they refer to as 'generic' creativity research. I next summarize the works they had themselves reviewed and were pointing to as a source of their predicament, giving their aim, focus, subjects and results. In the discussion section I compare the list of the most popular topics in contemporary research in creativity with a list of the most popular research topics in contemporary research in *linguistic* creativity, and point at the issue of *topicality* as a possible reason for which my informants decided that the idea to move across disciplinary boundaries is not as good as they originally assumed. The chapter ends with a few suggestions concerning modifications that would have to be introduced into a text to prevent scholars who have just entered an unfamiliar research territory from dropping out at this early stage.

Chapter Three describes the results of specific searches my informants might have performed on the literature produced within the scholarly study of creativity had they not decided to look for a different research topic. As before, their motivation underlying the choices they typically make during this subsequent phase of research – looking for more specific information rather than trying

to get an orientation within a field – is elaborated upon in the opening section of the chapter. While reviewing the same texts they had selected for the preliminary reading, I am trying to assess these texts relative to whether they would help my two informants find a research topic that would allow them to make a contribution to science, which is a standard requirement for graduate papers, as well as other 'filters' they said they would themselves be using had they conducted such a review. As in the case of the preceding chapter, I point at the difficulties they would have encountered and again offer suggestions concerning the possible improvements that could be introduced in works produced within discourse communities which know that progress on the research topic they are investigating depends, to a considerable extent, on whether they will manage to convince other disciplinary divisions to come and give them a hand.

Although, for reasons of confidentiality, I have to renounce disclosing the identity of individuals who entrusted to me the difficulties they were experiencing as well as giving any information (other than that concerning their one-time research interests, to which they agreed) that could be used to identify them,[2] both they, as well as all students whom I taught and who stand behind my interest in an academic text and its capability to facilitate exchange among researchers deserve my deepest thanks. This book is dedicated to them as well as *all other individuals who helped make it a reality*.

The thesis of my work presented here is: scientific texts we produce can negatively affect the level of collaborative

[2] At the time the book was being completed they were both doctoral students and unsure of the consequences of someone revealing what they often saw as their own inadequacy as researchers.

readiness on the part of scholars whose collaboration is needed in resolving research problems that are beyond one single area of research practice. The method applied in order to demonstrate this was qualitative data analysis of texts that my informants used or may have used at various points, complemented by the feedback obtained from regular in-depth interviews with them. The analysis conducted revealed a number of elements of a text that, if improved, may increase the level of collaborative readiness on the part of researchers who turn to the literature produced outside their original field of specialization. The findings obtained may also be of interest to those concerned with the pedagogy of doctoral research.

Chapter One: Setting the scene

1.1 The consequences of 'turning interdisciplinary'

Every time I overhear my colleagues and/or the graduate students I teach discuss interdisciplinarity, I automatically know what their discussion was triggered by. And the reasons are always the same. Someone's grant application, someone's research plan or someone's research idea and, sometimes, the entire work (e.g. a doctoral or a post-doctoral dissertation) was rejected as 'too interdisciplinary'. The message transmitted to them on such occasions seems clear enough: 'turning interdisciplinary' is something one should consider twice.

In theory, this shouldn't be happening. Interdisciplinarity is, in theory again, not bad. When the issue one wants to address is of a broad nature, the questions to be answered complex, and the problems at hand clearly beyond the scope of a single area of research practice, changing colors may be the only way. In other words, if one encountered a disciplinary research question that seems to require 'outreach to other disciplines(s)' (Lattuca, 2003: 5),[3] why

[3] Lattuca (2003) can also be consulted for the definition of interdisciplinarity that this author cites after *Interdisciplinarity: Problems of Teaching and Research in Universities* – a highly

not allow this to happen? After all, the history of science abounds in cases in which the 'work done wholly within one well-defined discipline [...] is exploited with great rewards by another discipline' (Metzger and Zare, 1999: 4).[4] Classics on the topic of interdisciplinary research such as Klein (1990) also continually remind us of 'a range of objectives' which could not have been accomplished had '[e]ducators, researchers and practitioners' not moved across disciplinary boundaries (p. 11),[5] applying, each

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influential book on the issue, published by the Organization for Economic Cooperation and Development (OECD). In this definition, interdisciplinary research denotes research conducted by an individual trained in a certain field, who reaches for concepts (and with them, the theories), methods, data and terms that have their origin in a different field in order to solve a research problem or answer a research question that s/he wouldn't be able to solve within the confines of his own discipline. Formulated in this way, the definition does subsume 'the kinds of interaction that', according to Klein (1990: 64; my emphasis), 'have constituted "interdisciplinary" interaction *in actual practice* [...] (1), borrowing, (2) solving problems, (3) increased consistency of subjects or methods'. As regards a related term, *multidisciplinary research*, it has been used with reference to those areas of research practice which 'encompass several different disciplines' (Stokols, 2006: 68) whose representatives 'work independently or sequentially, each from his or her own disciplinary perspective, to address a particular research topic' (*ibid*., p. 67). Such a clarification is necessary, since both terms (i.e. *inter-* and *multidisciplinarity*) are often used interchangeably with other, related labels (e.g. *cross-*, *pluri-*, and *transdisciplinarity*).

[4] To illustrate, Metzger and Zare (1999: 3) evoke the history of American research, where a 'substantial part [...] has been written by people who [...] have reached out to other fields, merging different perspectives and creating new ideas, even new fields'.

[5] In addition to the benefits enumerated above, working in the interdisciplinary paradigm also allows those involved to, in the words of Klein (1990: 11), 'explore disciplinary and professional relations' and, finally, 'achieve unity of knowledge, whether on a limited or grand scale.'

time, the 'inexorable logic that real problems of society do not come in discipline-shaped blocks' (*ibid*., p. 35).[6]

But no matter how many arguments in favor of the idea one has collected, the end list will never match the length of the one upon which such an individual would collect all obstacles[7] to interdisciplinarity warned about in the literature of the topic. Having sorted them out in terms of seriousness, such a list would probably have to feature job security on top. The graduate students I mention in the first paragraph (and who, at one point received the

[6] Other frequently mentioned merits of working in the interdisciplinary paradigm include accelerating the growth of knowledge, access to fresh insights and methodologies or a chance to address topics which have been neglected because they lie outside disciplinary boundaries. Interdisciplinarians, apparently, also stand a better chance of avoiding embarrassing cross-disciplinary oversights that – given those who review our work typically represent the same discipline as we do – may otherwise be difficult to detect.

[7] In this section, I'm using the word *consequences* instead of 'obstacles' or 'barriers', which prevail in interdisciplinarity discourse. This decision allows me to more faithfully reflect how those I know (my colleagues and the graduate [i.e. doctoral] students I teach) feel about the issue and what categories they fill the interdisciplinarity frame with. In these conversations, job insecurity, as well as other consequences specified above always take precedence before 'the departmental structure of the universities and its influence on institutional reward systems' (Lattuca, 2001: 21) this author specifies as the major obstacle to disciplinary research. So even if I agree with that part of Lattuca's (2001) argument where she claims that our 'understanding how interdisciplinarity is received, and how it is conceived, depends on an understanding of the nature of academic disciplines and their influence on faculty life' (p. 23), I find it fruitless to talk about barriers in a manner that may entail the downplaying of the way those affected feel. The same position characterizes all studies on interdisciplinarity conduced from the poststructuralist perspective, in which the concept of structure is replaced with that of a space, populated by individual actors and issues they consider important.

'too interdisciplinary' verdict) seldom (dare to) ask what it is about interdisciplinarity that makes others shudder, but if they did bother to check, it would take them no further than the web sites devoted to interdisciplinarity to confirm that what they have just experienced is a norm and not an exception. Universities do usually channel their resources through the disciplines. Accordingly, they do find it problematic to account for the salary of someone whose work is difficult to pigeonhole as disciplinary. In consequence, getting a contract prolonged is a concomitant of working in the disciplinary paradigm and probably all tenured professors they will be meeting in future will be strict disciplinarians.

The literature on interdisciplinarity that the contributors to some these sites refer them to would confirm this amply and so would the sources I have been drawing on while preparing this section. In the first of them, Lattuca (2001: 39), they would find a reference to a study by Nilles (1976), who observed that levels of involvement in interdisciplinary projects by untenured faculty members dropped as the day of the decision concerning their eventual tenure drew nearer. Another author she mentions in this context is Birnbaum (1981), who noted that interdisciplinary researchers 'tended to be scholars without tenure concerns' (*ibid.*), whereas in yet another study she is reporting, Hurst (1992), sixty percent reported 'pressure on untenured faculty to work within their disciplines' (Lattuca, 2001: 38).

Since Lattuca's own research does contradict these findings to some extent, I decided to extend the review to include other studies that would help me determine whether the tendency may still be in force. In two such sources, Augsburg (2006) and Rijnsoever and Hessels

(2011), we again learn that indisciplinarity and job security apparently seldom go hand in hand. What is more, this risk 'of never attaining tenure-track positions, let alone obtaining tenure' (Augsburg, 2006: 153) will grow, 'as universities devise more ways to instill post-tenure reviews, revoke tenure, force retirement, and/or do away with tenure altogether' (p. 152–153) – a trend that clearly explains why 16% of the subjects of yet another study located, Rhoten and Parker (2004), said they knew their participation in interdisciplinary projects was going to have '"negative" [long-term] career effects' (p. 2046),[8] meaning that, as one of them explained, '"[f]or those of us who begin interdisciplinary, [...] it may take us longer to establish ourselves in our careers."'

But even if being awarded the tenure is, for many people, 'the closest thing to job security' (Carp, 2008: 1) they can think of, there will be other moments in their professional lives at which the negative consequences of having turned interdisciplinary will be felt. One of these is getting hired – a complication vividly described in one of the so-called 'insiders' accounts' that I found in an article titled 'Alice's Adventures in Tenureland' (Powers, 2008), among the responses written in reaction to the article's contents. As its author rhetorically asks,

> Getting tenure doing interdisciplinary work is a problem? Try getting hired in the first place with an interdisciplinary degree! Between hiring committees not knowing what to make of your

[8] This last finding also explains why the staff of the collaborative projects surveyed included fewer professors and more graduate students. As we read, '[w]hereas 61 of 99 (62%) graduate students reported at least one interdisciplinary collaboration, only 72 of 147 professors (49%) claimed the same' (Rhoten and Parker, 2004: 2046).

degree and disciplinary departments guarding and maintaining the borders of their discipline, it's miserable...

The same conclusion arises from another commentary, whose author asserts that:

> [g]oing on the job market with an interdisciplinary degree is brutal. So many job advertisements are written for "PhD in X" and when one contacts the committee, they will not even consider that I have been teaching and publishing in X for 20 years, but my PhD is in an interdisciplinary field (involving X). So my advice – learned the hard way – is 1) not to get an interdisciplinary degree and 2) if one has one and is lucky enough (as I did) to earn tenure – don't walk away from that job – because it is so very difficult to find another. Schools talk the "interdisciplinarity" argot, but as others have pointed out – their practices have not caught up to their argot.

While examining the literature on interdisciplinarity, graduate students will also discover that expertise and reputation do little to protect an individual from anti-interdisciplinary tenure, hiring and promotion policies. Nissani (1997) is a good source in this respect, mentioning, at one point, renowned scholars who have 'come close to being fired from an academic post for being [...] generalist' (p. 213). The authors that Nissani cites – Asimov (1980) or Bechtel (1986), to name just two – abound in similar examples of scientists whose ideas took decades to be noticed, or who had to refashion their work in conformity with the accepted models. Finally, the examples of scholars whose grant applications were turned down due to the fact that the program had no interdisciplinary category are cited. It is on the basis of such evidence that authors such as Heberlein (1988) have no hesitation in talking about 'the punishments associated with interdisciplinary research'.

But job security, undoubtedly the most serious consequence of practicing interdisciplinary inquiry, is not the only deterrent. Researchers who are deciding to apply the interdisciplinary research approach as, in their opinion, the only way of solving problems that challenge traditional ways of inquiry must also take into consideration that their work may be more difficult to publish than the work of strict disciplinarians. Lattuca (2001) can again be recommended as a good source of information on the issue. First, as she claims on the basis of the work carried out by Porter and Rossini (1985), 'the more interdisciplinary the project the poorer the rating' (p. 38).[9] Secondly, as the two found out, proposals from one's own discipline were rated 'more favorably'. And even if the work cited by Lattuca dates back a few decades, it does not take one long to locate more recent studies such as Huutoniemi (2012) or Lamont and Huutoniemi (2011) that demonstrate that this, as they call it, 'favoritism for the familiar' detected by Porter and Rossini still pervades in this 'most widely used' (p. 209) form of academic evaluation, a peer review. '[E]quating "what looks most like you" with "excellence"' is still common practice (p. 226) and the reviewers that Lamont and Huutoniemi interviewed did have problems with rating proposals that originated in areas that, as one of them said, lied outside their '"area of expertise"' (p. 220).

Of course, the number of journals accepting work in the interdisciplinary paradigm is growing steadily and one can always try one's luck there. However, publishing

[9] The same has been noted by Ryff and Singer, who claim that this tendency to be 'critical of broad, integrative agendas' may be particularly pronounced in the case of 'reviewers used to highly focused investigations where the main objective is [...] to zero in on specific causal processes or mechanisms' (2008: 215).

in them will also have its price (Campbell, 2005: 574). As she explains, since interdisciplinary research journals have been on the market for a shorter period than their 'well-respected discipline-based' counterparts, publishing in them automatically means less recognition and less merit points than publishing in the former publication type. This pattern is also commented upon by Daily and Ehrlich (1999) or Pickett *et al.* (1999) Campbell cites in support of her case, as well as studies not mentioned in Campbell, which leave no doubt as to the fact that '"excellence-based" journal rankings exhibit a systematic bias in favor of mono-disciplinary research' (Rafols *et al.* 2012: Abstract).[10]

In between such episodes as being refused a promotion or having a publication rejected, committed interdisciplinarians or interdisciplinarians-to-be must also be prepared for being continually exposed to disparaging remarks concerning the nature (or the quality) of what they do. Faculty authorities undoubtedly have their share here[11] and so do reviewers whose commentaries clearly suggest, as Lattuca (2001: 38) puts it mildly, 'discomfort with interdisciplinary work'.[12] And even if the epithets they are

[10] Other sources discussing the obstacles to publishing research carried out in the interdisciplinary paradigm include, for instance, Naiman (1999), or Turner and Carpenter (1999).

[11] For even if such individuals were personally willing to admit that interdisciplinarity may help a particular faculty member attain his or her own research goals, the moment they start acting in their capacity as, say, members of the faculty board, they also have a duty to maintain its scholarly prestige. And, as they are likely to argue on such occasions, the contribution of interdisciplinary research towards raising it is very small, granted how few doctoral degrees it generates (Lattuca, 2001:, based on Birnbaum, 1981).

[12] One issue not raised in this part of Lattuca's account which also seems worth considering is the extent to which the reviewers' reluctance

being served may vary,[13] the core message being transmitted on such occasions is clear: as in the case of other tightly knit communities, one either submits or has one's actions viewed as 'potentially subversive' (Nissani, 1997: 213).

Received wisdom says there is more than one way to skin a cat. The evidence presented above suggests that there is more than one way to stifle work in the interdisciplinary

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towards the idea of interdisciplinarity may be affected by the nature of the relationship between them and journal editors who have commissioned the reviews. All we find there is an assumption that 'journal editors may be reluctant to publish the results of interdisciplinary research' (p. 38), the reason being that such research may be argued to 'lie outside the narrow interests of their primary groups'. But even if no direct connection could be claimed, the two facts cited above provide us with a perfect illustration of a statement we find in the abstract of Feller's study (Feller, 2006), namely that '[t]he question of how to assess interdisciplinary research is made more complex by the existence of multiple actors making multiple decisions in multiple organizational settings' and that these measures are 'context-dependent'.

[13] See, for instance, Nissani (1997), where interdisciplinarians are derided as 'jacks of all trades, masters of none' (p. 212), a clear allusion to the fact that their mastery of the field will never be as complete as that of 'the specialists upon whose work their own endeavor is based' (*ibid.*). By the same token, in Klein (1990: 77), who assembled an impressive collection of derogatory phrases of that kind, interdisciplinarians are referred to by their colleagues as 'interlopers', and their activities as 'invasion' or 'alien intrusion'. In view of this, it is little wonder that the phrases used to pay committed disciplinarians in their own coin refer to a discipline as 'private property' with 'no trespassing notices' or 'a balkanized region of research principalities', '"feudalized" like other scientific disciplines into separate "fiefdoms"'. 'Locked in their "autonomous fiefs," their "bastions of medieval autonomy"', continues Klein, 'the disciplines nurture their "academic nationalism," keeping departmental turf "jealously protected" and "domain assumptions" firm.' And, as one can logically assume, the 'chief activity' in such a world 'is dispute over territory' (*ibid.*), and not how to best make a contribution to the advancement of knowledge – a reality that makes Nilles (1976: 160) conclude that '[h]igh quality interdisciplinary research is performed in spite of the traditional university environment, not because of it …'.

paradigm. If any advice can be offered on such evidence, it can only be one: to comply with disciplinary authority.

But if we happened to pass such advice in the presence of scholars who know that progress in the discipline they represent depends on interdisciplinary collaboration, I guess they would have no choice but to reject it as unconstructive. And it is at this point when they might start considering what each of them could do in order to avoid exacerbating the situation. Somewhere along this path, some of them might start toying with the idea of taking a closer look at the texts they are producing. Following this idea would mean re-examining all these tradition-sanctioned reporting practices they have been resorting to with a view of determining whether they actually facilitate, or maybe rather hamper collaboration.

1.2 An academic text as an additional barrier to developing interdisciplinary research

Having analyzed the institutional obstacles to conducting interdisciplinary research such as those briefly characterized above, scholars who pursue research topics that are interdisciplinary by nature and who are, therefore, interested in others joining them in their pursuits, may justifiably feel that they have reached a deadlock. The reason for this is simple: one basically has no control over factors such as the structural organization of universities, the politics of individual departments or faculties or the policies followed by publishers of scientific journals. Unfortunately, the same concerns the evidence for a text as a potential barrier to interdisciplinarity. The moment one has reviewed some of it, one realizes all factors in this

category would also be difficult, if not impossible to remove. The naïve logic that a text is something that one may control to a greater extent than factors of an institutional nature breaks the moment one learns what specific characteristics of texts make them so difficult for others to process.

The first, predictably, is the language employed by specialists representing a given discipline. Indeed, it would be hard to find a publication discussing interdisciplinarity whose author would forget to mention the language barrier.[14] Of all properties of language that are mentioned on such occasions, it seems to be the (specialist) vocabulary that is discussed most frequently. In consequence, if one came across a claim that 'large areas of the scientific literature are becoming incomprehensible to all but a few initiates' (Hayes, 1992: 739), one could safely assume that it has been forwarded in response to technical jargon, terminology and/or specialist terms that authors of scientific texts saturate them with.

The reasons this particular author gives for the jargon that specialists resort to as being, in principle, ineliminable, include 'be[ing] explicit in their referencing and economical with space' – two features that, as he continues, enable text authors to produce 'succinct papers for editors and referees' (Hayes, 1992: 739). Authors such as King and Brownell (1976) or Becher (1989), both of

[14] E.g. Borego and Newswander (2010), Bracken and Oughton (2006), Campbell (2005), Kuhn (1977) and, of course, those on which we had been drawing to a considerable extent in section 1.1 above: Klein (1990) and Lattuca (2001). However, as already mentioned in the prefatory section, in most of these publications, as well as the studies cited in them the focus is on communication barriers observed among members of interdisciplinary research teams, whereas the need to understand what one reads in a situation when there is no one to ask for clarification is almost entirely ignored.

whom can be found in Lattuca (2001: 30), also remind their readership that 'the jargon and the technical terms they [i.e. scholars] use cannot be renounced and for the obvious reason – that they simplify communication between' themselves and other scholars populating the same field. As such, they will have to be retained, even if one knows that they will make the text a 'tough reading' (Hayes, 1992: 739) for the non-specialists – i.e. all those who are, by definition, the primary target of individuals who know that progress in disclosing some aspects of their research topic would be faster if they had managed to persuade 'the outsiders' to join and give them a hand.

One issue that the scholars quoted above do not address is that the difficulties experienced by non-experts to a certain field of study may vary depending on the amount of expertise one has as a researcher. As results from my own observations, one of the most serious difficulties vocabulary poses for novice researches is differences 'in range, frequency, collocation' that, as pointed out by Hyland and Tse (2007: 235), occur when a word changes disciplines. And even if Hyland and Tse's study has been conducted with a different purpose in mind,[15] what they revealed clearly has implications for scholars operating in the processing (and not just the productive) mode. Different frequency, range, and collocability patterns mean that comprehension will be impeded by words one

[15] Hyland and Tse's study constitutes a response to the assumed usefulness of teaching students the so-called 'single core vocabulary' (2007: 235) they are believed to need 'for academic study'. Their study's results, as they argue, 'question the widely held assumption', a claim corroborated by, for instance, Shanahan, Shanahan and Misischia (2006), whose findings also suggest that more attention should go to helping future researchers acquire the vocabulary that is specific to their field of inquiry.

is not used to, or by words one knows well, but which, all of a sudden, choose collocational partners with which they have never before kept company. Next, novice researchers do have a tendency to assume that, as Wear (1999) points out, they understand 'what is being said' (p. 299), whereas, in fact, they do not, the reason being that the '[specialist] dialects [they encounter] can at times sound very much like common language' (*ibid*.).

Seasoned researchers, who have made many such mistakes before and who, therefore, do know that common words may 'be imbued with specific meanings' (Lattuca, 2001: 30), seem free from such risks. But here again, as my experience dictates, comprehension can be impeded by the fact that they, as Wear convincingly argues (1999: 299), do not have access to all the imagery discipline-specific words evoke in a 'properly initiated practitioner':[16]

> The fundamental challenge to interdisciplinary communication is the different ways we see the world that is our constitutive metaphors. The greater the divergence between these foundations, the more difficult it is for communication to be effective. Even heuristic metaphors provide communication challenges. For example, when the economist invokes "competition" or the ecologist utters "niche," they are bringing to the discussion powerful imagery that invokes neoclassical production theory with the former, identifiable components of ecosystems with the latter. These deeper meanings are

[16] Many texts on interdisciplinarity raise this issue and many authors (e.g. Lattuca, 2001: 30) remind their readership of the well-known passage by Kuhn (1977: 203–204), in which he argues that understanding what is being said is not tantamount to having adopted a particular worldview, which linguists will easily recognize as reminiscent of hypotheses on how the language we acquire results in us adopting a certain perspective on what we see around.

only clear to the properly initiated practitioner. But perhaps the more interesting element of this example is that each word carries emotional baggage in both disciplines. When the ecologist uses "competition," it brings to mind epochal forces that exclude all but the best suited species from a niche (in contrast, a competitive market provides a situation that supports several firms). When the economist uses the word niche, she appeals to the notion of a niche market, implying that it is relatively incidental to the operation of the economy as a whole (in contrast, a niche can be viewed as the fundamental "compartment" of an ecosystem). The potential problem then is that these two disciplines appeal to a common pool of language to construct their unique metaphors, a very confusing situation indeed.

The technical vocabulary – i.e. words used in a discipline-specific manner – is, of course, not the only problem specified in the literature on how the texts we produce fare in the hands of fellow scholars. While putting their thoughts into words, authors may, namely, do it in different ways, or intellectual styles, as these have been dubbed by Galtung (1981),[17] each style characterized by different ways of conducting discourse. Take digressiveness, for instance. As many of my colleagues who had, up to a certain point, been publishing extensively in Polish and/or German admit, this way of writing which they never managed to 'unlearn',

[17] Readers familiar with research done by Clyne will recognize that the introductory fragment in which Galtung's styles are referred to as simply different ways of putting thoughts into language are a paraphrase of his 'definition'. As regards the implications their use has for scholars representing various national traditions, and, more specifically, the way they may affect the mutual understanding and, hence, the assimilation of knowledge produced outside the boundaries of one's own discipline, these have been discussed on many occasions, also by the contributors to the volume edited by Duszak from which I am quoting above.

often rendered their texts unreadable for their 'Saxonic'[18] colleagues – an issue raised by, among others, Duszak (1997: 323), who would confirm that digressiveness places an extraordinary demand on the 'processing abilities' of those 'unaccustomed to that kind of rhetoric'. In consequence, as Duszak continues, even those who do 'expend extra effort in reading' may 'still find the main line of the writer's thought obscure or difficult to follow'(p. 324).

The preference for a specific 'writing style', as Duszak (1997: 323) calls them, also means that the publications one encounters will differ in terms of the individual parts' structure and contents. Structural differences may mean a greater processing effort; content differences may even lead to a complete breakdown in communication. To illustrate, if the part in question happens to be an abstract or the introduction to a scientific article and if the article's author has failed to place some information there, the reader may assume that the publication does not have what s/he was hoping to find, and, in consequence, classify it as useless from the point of view of his or her research interests. In many cases, the differences observed may be a matter of national (see e.g. Ahmad, 1997),[19] but to

[18] The term 'Saxonic' here means the style used by speakers of English, whereas the one instilled in Polish and German scholars is called Teutonic. In addition to these two, Galtung (1981) distinguishes two additional forms, Gallic and Nipponic.

[19] The focus of Ahmad's study was, namely, 'the organization of the rhetorical structure of scientific research written in Malay by Malaysian academics' (1997: 296). In his own words, 'only approximately 65 percent of Malay research article introduction sections have the move patterns commonly found in English research articles', the greatest difference observed in the part in which English scholars establish a niche. However, from the point of view of illustrating what we are claiming above it is the fragment in which Ahmad says that 'there is

a considerable extent, of disciplinary preferences (see, for instance, Clyne, 1987; Fakhri, 2009; Melander, Swales and Fredrickson, 1997; Nwogu, 1997; Posteguillo, 1999; Samraj, 2005; Swales and Najjar, 1987 or Taylor and Tinguang, 1991, to name just a few).[20] And then, of course, there are all these strategies that help the writers construe a coherent text,[21] the literature offering considerable evidence that, especially in the case of those 'readers who know little about the domain of the text' (McNamara *et al.*, 1996: 1), coherence is a *sine qua non* of comprehension. This last finding confirms what Carrell (1982) has predicted with reference to ordinary language users, who are able to form a logical connection between the ideas a text contains (but which have not been tied by one of the explicit cohesion markers that Halliday and Hassan [1976] claim increase a text's coherence), but only as long as they possess the relevant knowledge of how things are in the world outside.[22] Finally, and still in the category of studies whose

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no attempt [in the introductions] to indicate the structure of the whole article, nor is there evidence for the announcement of the principal findings' that matters the most. By the same token, introductions to articles from the domain of law and the humanities analyzed by Fakhri (2009) contain no indication that their authors have 'utilized challenges to previous scholarship as a means of justifying the research proposed' (Fakhri, 2009: Abstract).

[20] In the case of Clyne's (1987) study, the differences had been observed on the basis of a corpus of 52 linguistic and sociological texts; in Fakhri's (2009), a corpus of 50 'Arabic research articles from the fields of law and humanities'.

[21] In Halliday and Hasan's view (1976), these entail the use of words/phrases and/or syntactic constructions that contribute to text's cohesion.

[22] To demonstrate this, Carrell (1982: 484) uses an example consisting of the well-known sentence pair *The picnic was ruined. No one remembered to bring the corkscrew*. The fact that no explicit cohesion

authors focus on elements of texts that may be difficult to interpret, creating, in this way, an additional barrier to collaboration, one may mention the work of Bowen and Roth (2002), Leinhardt *et al.* (1990) or Schnotz (1993), who have demonstrated how inscriptions may hamper comprehension even in the case of individuals 'with [a] university degree' (Bowen and Roth, 2002: 304).

Inscriptions, a collective term whose range encompasses, on Bowen and Roth's definition, 'graphs, diagrams, photographs, tables, [and] mathematical formulae' (Bowen and Roth, 2002: 303), have, of course, proven of service in virtually all disciplines. On the other hand, when one uses this word, many of us automatically assume that the work being discussed is one that 'involves data collection procedures that result primarily in numerical data which is then analysed primarily by statistical methods' (Dörnyei, 2007: 24). This brings us to the second large group of factors that may hamper communication with those outside the discipline we represent – factors connected with the research mode or paradigm that one has resorted to. While reviewing texts such as Dörnyei, one may, at first, erroneously assume that it is mainly quantitative research that causes problems; an impression reinforced by empirical research which confirms that the inclusion of quantitative details in texts can 'hurt qualitative understanding' (Mayer and Jackson, 2005).[23] Upon further investigation, however,

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devices have been used does not impede understanding, provided, of course, the reader knows how forgotten corkscrews can ruin picnics.

[23] As in the case of obstacles to interdisciplinarity, here too, it may be illuminating to examine some of the remarks scholars working in the qualitative mode direct at their 'quan' colleagues. The book by Dörnyei contains quite a few good examples, e.g. an accusation that quantitative

one will eventually be able to retrieve texts that point at precisely the opposite being the case:

> A decade ago, in the first edition of this *Handbook*, I confessed that for years I had yawned my way through numerous supposedly exemplary [...] studies. Countless numbers of texts had I abandoned half read, half scanned. I would order a new book with great anticipation – the topic was one I was interested in, the author was someone I wanted to read – only to find the text boring. In 'coming out' to my colleagues and students about my secret displeasure with much of *qualitative writing*, I found a community of like-minded discontents. Undergraduates, graduates, and colleagues alike said that they found much of qualitative writing to be – yes – boring. (Richardson and St. Pierre, 2005: 959; emphasis added)

Two conclusions emerge after reviewing a small portion of the literature that has demonstrated how, on occasion, high-quality academic texts fail their readers. The first of

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researchers 'had gone down the "meaning in numbers" path', whereas 'the real meaning lies with individual cases who make up our world', and not with numbers (Dörnyei, 2007: 27); in short, that they are producing research that is 'overly simplistic, decontextualised, reductionist in terms of its generalizations, and failing to capture the meanings that actors attach to their lives and circumstances' (Brannen, 2005: 7). And then, of course, there are professional contacts and the informal exchanges with colleagues who confirm that quantitative research typically makes them feel enforced into a role they have long grown out of. Needless to say, all of them are fully aware of the fact that – as stressed by Betz (2011: xvi) – their 'professional survival in the modern world of research' requires a good understanding of 'a sophisticated approach to methodology including statistics techniques'. However, in spite of the fact that they do, from time to time, promise themselves to learn more about the 'damn statistics', none of them does. Worse still, they all confess that their avoidance of quantitative studies may, at a certain point, spread over an entire field, even if they know that some of the research carried out in this field has important implications for what they do. Doctoral students have the same problem: if given a reading assignment consisting of roughly the same number of articles written in both modes, their comprehension of quantitative studies is typically poorer.

them is that processing the texts we are producing 'requires more than basic reading achievement' (Shanahan, 2009: 243). The individuals on whose collaboration one counts will be approaching our texts with 'a particular mindset or interpretive lens' that are 'a characteristic of *their* field of study' (p. 242). All elements employed to facilitate communication within our own field of specialization may, and often will, hamper communication with those outside the field, the possible problem areas including a different intellectual style, the text's structure, the terms employed, the field's constitutive metaphors and the paradigm in which the research conducted is being reported. What is more, being part and parcel of the tradition one represents, such elements cannot simply be eliminated. The moment one realizes what these elements are, one also starts understanding that the argument concerning a text as something that one may control to a greater extent than factors of an institutional nature may have been a bit naïve.

However, as results from informal exchanges between myself and my informants, when they first started considering the incorporation of findings produced outside their own field of specialization into their own (doctoral) research, the literature they had been reviewing 'failed' them for reasons other than those enumerated above. Or perhaps I should say 'for some additional reasons'. Of course they did struggle with terminology and they did have a hard time having to decipher the tables and the results they contained, but this was not their only problem. Interestingly, the moment they started reporting what *they* saw as the biggest obstacle(s), their accounts sounded very much like those countless accounts I had encountered within my primary area of specialization, dictionary research.

1.3 Research into the use of dictionaries and its implications for the present project

The discourse community to which I am alluding in the last paragraph of the preceding section, metalexicography,[24] was once confronted with a similar problem. The text was, of course, a different type of text and the text addressee was dictionary users and not one's potential collaboration partners.[25] However, the 'collaboration' that the authors of the text in question – dictionary compilers – were wishing for – was similar in the sense that they, too,

[24] The term 'discourse community' will be used here in the same sense as in Swales (1990), who proposed it to refer to academic collectives who write in characteristic registers (which entails sharing certain common language norms) and genres. The two discourse communities meant above are, on the one hand, students of interdisciplinarity and, on the other hand, dictionary researchers. Later on, we will be employing this term with reference to generic creativity researchers and students of creativity in language; as for other studies in addition to Swales (1990) or Swales (1998) which discuss the concept, one may mention for instance Bazerman and Paradis (1991), Bazerman and Prior (2005), Berkenkotter and Huckin (1995), Bizzell (1992), Porter (1992), or Prior (1998).

[25] Concerning the notion of a text, there are, as is commonly known, many text typologies, one of the best known being Reiss (1971) whose classificatory attempt draws on Bühler's (1934/1965) concept of three distinct functions of language. Informative texts are here described as those 'focus[ing] on the referential content' (Munday, 2009: 232), typical examples including an encyclopaedia. Of course, as also noted in connection with various text types, none of them has clear content boundaries, i.e. even a purely, as it might seem at first blush, informative text such as a dictionary will, simultaneously, contain language being used in the operative function, typically in a prefatory matter. This is, in turn, consistent with Jakobson's views: as Hébert (2011: 4) reminds us, '[f]or Jakobson, what characterizes poetry and distinguishes it from other genres (literary and textual in general) is *not so much the presence* of the poetic function *as its dominance*.'

wanted their 'collaboration partners', the users, to simply capitalize on the information the dictionary provided them with in those situations of communicative deficit in which a dictionary can be of help.

The users, however, refused to collaborate in the sense described above. As found out by scholars representing what is, these days, classified as the youngest subdivision of meta-lexicography, user-oriented research, many refused to consult the dictionaries that were put at their disposal. Capitalizing on what these dictionaries contained was, of course, not possible in such circumstances.

Another disquieting tendency that had been taken note of was that when a dictionary was put to use, the resulting performance was so poor that it, in fact, did not matter whether the learner used it or not. A logical hypothesis to make was that either the dictionaries were written in such a way that they confused rather than helped or that, reversely, it wasn't the dictionaries' fault; it was the users who had problems interpreting what they contained. Had the first part of the hypothesis become corroborated, the message to be sent to the compiler would be: change the text. Reversely, corroborating the second part would mean that greater effort must be expended on transforming the individuals in question into more knowledgeable, more conscious users.

The research initiatives that had been undertaken in order to determine whether it was the text's addressee or rather the text as such that posed the problem had their roots in the impetus that has come to lexicography from discourse analysis (Hartmann, 2001: 62).[26] The motto

[26] Historically, we are talking about a movement which most dictionary researchers believe to have originated in the late 1970s, two leading events which helped set it in train being the 1977 study by Wiegand as one of the earliest works urging 'for an empirical sociology of the

unifying all such attempts was also similar, namely, that any discussion in which the text of a dictionary will surface in some form must take cognizance of a broader context (see Ftn. 27 below) in which it is being put into use. In other words, regardless of which element of the text one wanted to focus on, such an analysis would have to be preceded with a thorough study of the contexts in which the element will be put to use, not to mention who it will be used by.[27] The underlying logic was simple: as in the case of one's potential collaboration partners, dictionary users will also be screening the text put at their disposal through the lens of their communicative needs, whereas the skills they have will have to be taken into consideration while deciding on the form in which the information they need will be served to them.[28]

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dictionary user' (Hartmann, 2001: 87) and a conference entitled *Dictionaries and their Users*, during which user's sociology was one of the major topics discussed. As for early works in which Wiegand's postulate was actually put into practice, Hartmann refers his readers to an article he was himself commissioned to compile ten years later (Hartmann, 1989) for the influential encyclopaedia of lexicography, *Wörterbücher. Dictionaries. Dictionnaires* (*WDD*, for short).

[27] In this paragraph, I am using the term *discourse* in the same way as Schiffrin (2006: 169), who defines it as 'the use of language above and beyond the sentence: how people use language in texts and contexts.' 'Beyond', as she explains, pertains to 'examining aspects of the world in which language is used', which contrasts with how formalists understood their job, i.e. that 'how language was used in context was not explored', speakers, hearers and situations' being 'outside the realm of analysis.' In turn, her 'above' means that (2006: 170–171) discourse analysts examine units larger than sentences; another point of contrast between them and 'the structural (i.e. formalist)' [...] approaches to analyzing language, in which the main point of focus was on the 'forms of language (sounds, morphemes, words, and sentences)'.

[28] This postulate to always closely examine a text's contents without losing sight of such elements of the user's identity as her background

The first attempts at learning more about the contexts in which users resorted to their dictionaries were all saying the same thing: to satisfy the reference needs of dictionary users, compilers should, basically, concentrate on what they did best: explain the meaning of words, as it has been meaning, as these first studies clearly showed, that was the main reason for which students reached for their dictionaries.[29] And indeed, many changes that were

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or the context in which she resorts to a dictionary find clear correspondence with yet another postulate by discourse analysts. This postulate concerns the importance of both 'past experience' and 'current interaction' (Schiffrin, 2006: 176) as two elements all communicative events depend on to a considerable extent. Indeed, to evaluate the text in question, the dictionary, without taking cognizance of specific variables in the user's identity category – his age, professional status, level of linguistic/competence or cultural background – and/or variables pertaining to the communicative situation (i.e. the activities in the context of which the text in question is being reached for) would, as argued by Hatherall (1984: 183–184), make as little sense as 'Princess Anne imagining what it is like to live on the dole: one grasps the broader outlines (does one not?), but inevitably falls short on the nitty-gritty.' In other words, a dictionary is not, in itself, good or bad: it is always good or bad *for this particular user*.

[29] The studies in question include Barnhart (1962) as well as such classics as (in chronological order) Quirk (1973), Tomaszczyk (1979), Béjoint (1981), Marello (1989) or Bareggi (1989). As for the changes I am referring to above, those introduced into so-called foreign learner dictionaries included a removal of 'information on syntactic functions and transformations' (Cowie, 1999: 176) by *CIDE* (1995) or *LDOCE3* (1995) – in short, elements for which the vast majority of these studies' subjects seemed to 'have no need' (Jackson, 1988: 198) and which they, therefore, 'would not miss if they were not included in dictionaries' (*ibid*., p. 199). Simultaneously, many elements which facilitate the work of a user operating in a decoding mode were added including 'introductory keywords intended to facilitate access to the sense-divisions of complex words [...] limited defining vocabularies [...] and [...] sentence-type definitions of a kind first introduced in *Cobuild 1* (1987)' (Cowie, 1999: 176) – elements that had been used before, but

introduced to the dictionary structure at those times were changes that took these research results into account. Shortly after, however, the first doubts started to creep in, the major source of critique being the methodology applied in these first user-oriented studies.

To do justice to authors of this early user-oriented work, the methodology they had reached for was a foreign import. Like many young disciplines which have been on the research scene for a relatively short period of time, meta-lexicography, too, had to borrow its methodological apparatus from other fields. The method that met with such an unfavourable reaction, surveying the user by means of a questionnaire of some sort – by far, probably the most common data collection instrument used in applied research – was criticized on the same grounds here as elsewhere, namely that when it is the only method resorted to, one will never know whether one's subjects have been reporting 'what they do, or what they think they do, or what they think they ought to do, or indeed a mixture of all three' (Hatherall, 1984: 184). Perhaps, as Hatherall is implying, when users claim that they are using a dictionary predominantly in the passive function, they do so because that is what they think they ought to be doing with their dictionaries. What is more, perhaps they also use it in other contexts, but do not say so, because they know that these are the contexts in which they are expected to try and do without it.

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on a much more limited scale. Of course, pedagogical dictionaries was not the only lexicographic genre affected by these first user-oriented studies: research into 'how user friendly' also targeted such lexicographic giants as Webster's dictionary, criticized (Marckwatdt, 1967) because of its usage labels (in particular 'substandard', 'nonstandard', 'colloquial' and 'illiterate').

To avoid the threat of students underreporting behaviours and/or attitudes that 'are socially not respected' (Dörnyei, 2007: 54), while, at the same time, over-reporting those that are, researchers into the use of dictionaries decided to replace indirect observation by means of opinion polls/questionnaires with methods that would produce 'authentic data on what they [i.e. the subjects] use the dictionary for' (Hatherall, 1984: 184). But, maybe, they shouldn't have, for as soon as the first studies of that kind appeared, they, too, became the object of critique. This time, the reason was yet another threat to research validity described in the literature – one that sociologists have termed 'the Hawthorne effect'. When this happens, subjects who know someone is observing them perform differently for the same reason as before, i.e. opting for behaviour that they think is socially desirable. To illustrate, if someone told them that using a dictionary in the context of a reading task is a good thing, the frequency with which they would be using it in experimental conditions would be greater than what would normally be the case, i.e. if they were not being observed.

To avoid the two threats to research validity briefly pointed at above, a compromise solution had to be worked out. This compromise solution entailed an analysis of data users produced or data users had contact with: texts they wrote or, in the second case, texts they were known to read. The second text type had already been put to use before: for instance when Hornby and his colleagues had to decide which new words and phrases to admit to the new, 1963 edition of Hornby's seminal work, they did so on the basis of 'the wide range of books, from publishing houses in the U.S.A. besides those in Great Britain, *that are likely to be read by advanced students of English*' (Hornby, 1963: v; emphasis added). Isolated

research initiatives such as Bujas (1975) used the same approach, breaking with the then-common practice of evaluating a dictionary's scope and/or coverage on any, but the researcher's own terms. Compilers of more recent dictionaries follow in Hornby's footsteps, deciding for or against the inclusion of a particular word on the basis of texts they know their target audience reads regularly.[30]

Regarding the texts users produce as the second major source of information on what it is that dictionary should, optimally, contain, papers produced in an exam context were reached for. Even if dictionaries were not allowed, these papers nevertheless contained mistakes that clearly showed what information users needed from their dictionaries. The logic accompanying this type of reasoning is clearly explained in an excerpt written by the head of the editorial team behind the production of

[30] A good, relatively recent example of this is the production of twelve specialized Estonian-Russian dictionaries for Russian-language schools (Kaalep and Mikk, 2008: 369–394), covering twelve curriculum subjects taught at Estonian schools (art, biology, chemistry, history, mathematics and social science, to name a few), whose aim was to help the Russian-speaking minority 'participate fully in the economic, cultural and political life of Estonia', an important element of which was 'acquiring terminology in specialist fields' (p. 370). Since the dictionaries were designed to 'support the reading of subject texts' (*ibid*, p. 377) in Estonian, the lists of items to appear in the planned dictionary series were composed 'in accordance with the school textbooks. Terms were sought in all the texts, and especially the words in bold print were considered for inclusion in the list of terms. Some textbooks contained glossaries of terms; these were used as well.' Additional care had also been taken to ensure that the terms selected in this way by Estonian-speaking compilers were to be of actual use to the target audience, which was achieved by having the lists reviewed by teachers who taught the subjects. After preparing the manuscripts, the reviewers were called in again, this time in order to assess 'whether all the main terms of the subject were explained in the dictionary' (Kaalep and Mikk, 2008: 379).

a relatively recent edition to one of the foreign learner's dictionaries. As she asserts:

> We also have an invaluable tool in the shape of the *Cambridge Learner Corpus*, which contains over 25 million words of English written by learners. The *CLC* has been developed in partnership with Cambridge ESOL, whose exams are taken by students all over the world. More than 10 million words of the *CLC* have been coded according to the mistakes learners make. For this edition, we have looked at the most common mistakes made by advanced learners, and have added nearly 500 new or revised 'Common Mistake' notes to help avoid them. Many of these mistakes will be well-known to teachers. Others seem a little strange, but are frequent in our corpus. Some teachers' hearts may sink to think that advanced learners are still making mistakes which may seem basic, but the evidence of the *Cambridge Learner Corpus* means that *our notes are based on real data, not on conjecture or wishful thinking*. (Walter, 2008: viii; emphasis added)

As this short review shows, scholars representing this specific discourse community clearly believe that a text's ability to persuade, to elicit a certain attitude – in short, to act on the user – is correlated with what information it contains. In order to be in a position to help the text author produce a text that is relevant to its recipients' particular needs and goals, they must be able to predict the informational needs of the text's intended recipients. After a few decades of working by trial and error they decide that the most accurate predictions are those made on the basis of materials dictionary users produce themselves as well as materials that inspire the use of a dictionary, such as the texts they read – a principle that will also be followed in the two analytical chapters of this project.

Summary of Chapter One

As results from the literature review, scholars who count on the assistance of researchers from other disciplines must take into consideration that the number of those who will, eventually, decide to answer their pleas for more intense collaborative research will be relatively small. Working in the interdisciplinary paradigm may be avoided for fear of being denied promotion and/or funding for the research one wants to conduct. Experimental studies carried out in this area consistently point at evaluators who lack commitment to interdisciplinary work as lacking in rigor, grant applications that are refereed by reviewers drawn from established disciplines and channeling resources through the disciplines as a standard budgetary practice at most universities. The overall message interdisciplinarians or interdisciplinarians-to-be receive is that it is research in the traditional disciplines and not work that is relatively far from the center of a given discipline that is given priority.

Additionally, one's potential collaboration partners may be scared off by what they will find in the texts one produces. Representatives of the so-called soft sciences have problems with understanding work conducted in the quantitative mode, whereas quantitative researchers find qualitative writing simply boring. However, none of the elements that create serious comprehension difficulties for 'the outsiders', listed in this chapter's middle section, can be removed, as all of them are part and parcel of the tradition one represents. The text's style, its norms, the technical vocabulary it contains or the discipline's constitutive metaphors only insiders can

understand properly as well as others we isolated in the course of this part of the review must be retained, no matter how much the newcomer to the field other than the one in which s/he was trained would like to see them removed.

The discourse community presented in the last section of this chapter solved the problem the texts produced within the field they study created for their recipients by trying to anticipate what these recipients' needs could be and, secondly, to what extent they will be able to encode the information the text contains. That this is largely analogous to what happens in the case of the collaborative script should be obvious: in both cases we are dealing with recipients who view the text through the lens of, in the latter case, their disciplinary knowledge and norms and – in the former case – the lens of their reference needs and skills. To learn more about the needs of dictionary users, one needs to extend on the traditional methodologies borrowed from sociology, as the most reasonable guesses concerning what to put into the dictionary are those made on the basis of sources dictionary users reach for on a regular basis.

In Chapters Two and Three I will be capitalizing on this experience, treating the texts my informants read or may have read as the major source of information about the expectations and knowledge with which they were entering a field they had decided to familiarize themselves with at one point: the field of 'generic' creativity research.[31]

[31] In this project, the term 'generic' – a term my two informants came across in an unpublished undergraduate-level paper they had found on the Internet – refers, as in this source, to the study of *all* creativity, irrespective of the form it manifests itself in. 'Official' names of the field differ, of course, the two being used most frequently being the

As they decided, it was within this field that they could reasonably expect to find an explanation of what creativity – linguistic creativity including – actually is.[32]

(scholarly) study of creativity or (academic) creativity research'. As regards the reasons for which they deemed 'reaching outside' necessary, I will return to this issue at the beginning of the next chapter.

[32] As can be seen, the choice of these two specific discourse communities, those into creativity in language and those trying to explain all creativity, irrespective of the form in which it manifests itself, has been dictated by my informants' choice of their research topic. But this is immaterial from the point of view of the study's aim. In other words, when this aim consists in determining to what extent the texts academics produce facilitate interdisciplinary collaboration, any other two research populations would suffice, on condition that the research topic they study is one whose solution lies beyond one single area of research practice.

Chapter Two: Reducing the 'Early Dropout' Rate

2.1 The conceptual and methodological background

Science textbooks that we recommend to our students often talk about conducting research in terms of exploring new and/or unchartered territories, making fascinating discoveries or coming across theories that will enhance their understanding or offer them valuable insights. In view of this, it is just a matter of time before they become 'completely absorbed in work, which "while not always in the foreground [...] is never gone"' (Strauss and Corbin, 1998: 6). This 'sense of absorption in, and devotion to, the work process as such' will provide them with 'a sense of enhanced integrity' (*ibid.*), reinforced by the hope that, as the two authors continue, what they do 'has direct or potential relevance for both nonacademic and academic audiences.' In short, being a researcher, as Strauss and Corbin conclude (1998: 14), is 'fun and exciting' and 'nothing can compare to the joy that comes from discovery.'

However, when I first talked to the two individuals who later agreed to act as my informants – two young researchers at the beginning of their postgraduate program – both their facial expression and their body

language suggested that whatever 'curiosity about their topic' (Dörnyei, 2007: 17) they may have initially had, it now clearly disappeared – somehow – and so had their 'clarity of purpose' – both indispensable, in Dörnyei's view, if we are 'to maintain our momentum' throughout these 'laborious parts' every research project undoubtedly entails. As resulted from this short conversation, they had just finished reviewing a number of texts they had collected in order *to get better up on their potential research topic, so as not to*, as they said, *come to the first meeting with their doctoral advisor totally unprepared*.[33] And, as they confessed, *in spite of all these promises publishers of academic books make in the prefatory matter* – probably meaning perennials such as that 'the author has managed to make difficult subject matter accessible to even inexperienced readers' – the ones they had been perusing *were all but an easy read*.

On this particular occasion I did not probe any further and I guess the conversation ended with some usual comments such as that doing research does involve a lot of hard work, and not only fun and excitement. However, as soon as my work on the present project began, I decided to contact them again, the reason being

[33] From now on, I will be using the italics for the translated excerpts of what these two individuals told me during the interviews I conducted with them. The fragment cited above is an exception in the sense that it comes from a conversation we had before the interviews, when they decided to seek my advice (one of them was a former student of mine) on an unrelated problem. This conversation took place at the beginning of the academic year when both were about to commence their doctoral studies, and my question concerning their research plans was one of these standard questions asked for the sake of politeness. As for the texts they are referring to above, these had been read by them during the summer break preceding our meeting.

that – as far as I could remember – the topic these two students had chosen was one of these interdisciplinary research topics *par excellence*: linguistic creativity. This meant that at least some of the texts that they had been pointing at as the source of their predicament may have been texts that originated in a field other than the one in which they had been trained. When we met again, they confirmed: *most of what they read during the summer preceding our first meeting was not the work by fellow linguists*, but what they were referring to as *'the theory': the writings produced within a field called the scholarly study of creativity* that they had often been dubbing *generic creativity research*'.

The problem the two individuals had been experiencing while perusing these publications was unlike those focused upon in the literature on the text as one of the barriers to interdisciplinary collaboration that I briefly reviewed in Chapter One. On the other hand, it did not sound unfamiliar either. Many B.A. and M.A. theses written by my former students suggested that they too often experienced similar difficulties and, in fact, these countless conversations we had together is where my interest in this topic – the text as, possibly, a barrier to interdisciplinary collaboration – stemmed from. In a nutshell, the difficulty that my two informants seemed to have run into was that the work *reported in the texts produced by generic creativity scholars did not seem to relate to work conducted within what they chose as their area of study*.

Why did the issue seem deserving of closer scholarly examination? Research on interdisciplinarity I came across while working on the present project suggested that young researchers are, generally, more likely to 'swallow

the hook' (i.e. engage in interdisciplinary work) than their older colleagues. As such, they should be treated as an important target by all discourse communities whose goal is to persuade others to come over and give them a hand with issues that are beyond one single area of research practice. The problem these two individuals were reporting suggested that, somewhere along the line, more care could have been taken to convince them 'to stay'. If so, we may assume that a failure on the part of the author of the text to show how the findings s/he reports connect with or are important to his or her potential collaboration partners is one of the predictors of 'dropping out' (both of my informants eventually decided to change their topic) and, thus, a serious threat to interdisciplinarity.

To test this hypothesis, however, I needed something more specific than the somewhat vague *what they did*, by which my two informants meant research conducted by generics. The explanation they provided me with next yielded a more testable category. As I suspected, when they said they were not sure if what they had found in the sources they reached for was applicable to what linguists seemed interested in, they mostly meant *the research topics pursued by creativity scholars*. Comparing these topics, as I was thinking back then, with a list of topics currently high on the agenda among scholars investigating this particular form of creativity – creativity in language – would enable me to determine whether what has, up to this point, been a subjective impression on my informants' part was, in fact, a well-founded claim.

The simplest way of doing this would, of course, entail working from a ready list that – as I was hoping – my two informants could provide me with. However, when I asked if it would be possible for them to isolate these

topics which were mostly responsible for their strong impression of these two research communities orbiting two different rather than one single planet, both claimed that *all they could remember after all this time was a few broad research areas*. Since creativity in language had never been my research interest and since my knowledge of the work conducted within the second, 'parent' field was virtually none, all I could do in those circumstances was to review the literature these students read myself and next try to locate a reliable source pointing at issues that linguists interested in this type of behaviour concerned themselves with as, obviously, important from the point of view of understanding linguistic creativity better.

As soon as I had the rough version of my review ready, I asked my two informants to read through it. The summary I present below is the review's 'authorized' version, meaning that both agreed that the topics reported in the summary are the topics that they once found so confusing. The results of the comparison I conducted next, using a relatively recent state-of-the art publication on creativity in language and literature are presented shortly after, in the discussion section placed immediately after the review.

In addition to analyzing the texts my informants had read – texts that, as we remember, predisposed them rather negatively towards incorporating into their own research the concepts developed outside their own field – whenever relevant, all throughout the chapter I will also be quoting from texts the two students had come across before and which they were pointing to every time I wanted to know what they did and why. Analyzing such 'background' texts is, as argued in the last section of Chapter One, important from the point of view of

understanding the text recipient's highly specific needs: in our case, where these two individuals 'came from' and what their mindset was when they decided to venture over. Consequently, whenever space permits, I will be quoting from them extensively.

As regards other issues that seem important at this point, all research topics pursued by generics that are listed in the two sections that follow had been arranged in the same way as my two informants did it when they were referring to the *few broad research areas* they remembered.[34] In consequence, the entire material has been divided into work pertaining to all that concerns the formative years of the creator, followed by topics undertaken in connection with adult creativity. Within this latter subdivision, five smaller areas had been identified by my informants: *work on personality*, *work on what is going on in the creator's mind*, *work on creativity as related to mental illness*, work on *the environment in which creative individuals function* and, finally, *work on various creativity types*. Since, as they agreed during one of the interviews, the confusion they were experiencing was largely caused by *'the what' of this research*: the research topics pursued 'over there', I tried, again for the comfort of the reader, to present it in such a way that the topics appear in the main body of my text, whereas the findings obtained and the names of the scholars behind these findings appear in footnotes.

Turning to the types of sources that my informants had reviewed, this corpus included only one textbook

[34] Originally, I was going to present them with a bare list, but soon after decided that a standard summary of the results, also containing the references allowing the two students to connect the topics pursued with the names of the relevant scholars would make this procedure more reliable.

that had been signed out from the university library. The remaining sources, all found on the Internet, were chapters from books, review articles as well as research articles.[35] A small number of texts they had collected were unauthorized texts, but the students read them nevertheless, even though they knew they would not be allowed to cite from them. While looking for these texts, the only two criteria they applied were, firstly, that the source in question should have *the bare creativity in the title* and, secondly, that it belongs to the category of works *usually recommended to beginner researchers*, i.e. is either the so-called secondary or the so-called tertiary source.[36]

As concerns other relevant particulars, this, as they called it, *preliminary literature review was conducted without looking for something specific*. As both of my informants claimed, *this is how they had been taught to do research*: during the *initial phase simply try to read as much as you can, without, that is, specific questions in mind*. Searching for something specific, as they argued, is *what one does later on, whereas the initial phase is*

[35] The three review articles found were Rhodes (1961), Runco (2004) and Sternberg *et al.* (2005); the textbook they chose a fairly dated *Handbook of Creativity* (1989). As regards other work they consulted at this stage, I give a detailed listing of all sources that they had referred me to and that I reviewed while working on this chapter in a separate subsection of the 'References' section.

[36] Two background texts had been pointed at in justification of this strategy: Williams and Chesterman (2001), which one of the informants became acquainted with in her seminar and which tells beginner researchers into the field of translation studies how to recognize a tertiary from a secondary and a primary source and Adams and Schwaneveldt (1985), in particular the chapter on reviewing the literature this book contains.

simply for getting a general orientation within a specific research area.[37] As they read, the two students, who frequently contacted one another anyway, sometimes discussed their impressions with one another. If one of them found something new she considered worth reading, she would share it with the other one.

As for other relevant details, for instance *their* motivation to choose this research topic (linguistic creativity) as well as why they thought it was necessary for them to become familiar with the work of generic creativity scholars, I will, for the sake of readability, be providing them as we proceed, in the sections that follow. The same concerns all other particulars relevant to this stage of the analysis.

2.2 The scope of the field of generic creativity research

Experienced researchers might object to what pushed my two informants towards this particular research topic, creativity in language. Research, according to such luminaries, starts with an identification of a research problem which others have not managed to solve, hypotheses that one wants to falsify or verify or some contradictory research results we want to resolve. In the case of these two young researchers, there were, initially, no problems and no contradictory results; all that they were basing their decision to make creativity in language the object of their study on was hearsay evidence that

[37] To justify, the students referred me to the same two background texts that are mentioned in the footnote immediately preceding this one.

suggested that *this topic would be an interesting one to pursue and lots of fun as well*.[38] This 'evidence' was not difficult to obtain: as my two informants maintained, linguistic creativity is *a hugely popular research topic*. Consequently, *you do get to hear from time to time what it entails, i.e. what type of language you will be studying when into linguistic creativity*.

The two *research articles* on creativity in language that one of my informants accidentally discovered, Czajka-Bubniak (2010) and Dupel (2010), only strengthened her resolve to do her doctoral research in creativity. *Unlike other pieces of academic writing she had to read in the past, these two publications were something she felt she could relate to, that she understood. The authors' objectives were clear, the studies' design easy to imitate. The sources these authors were citing were also there, easy to obtain, which settled one of the biggest problems she feared – that they will not be able to find sufficient relevant literature to start her off. Creating a corpus of examples to study would not be a problem either:* both[39] claimed that the moment they finished reading, they *started spotting what these two articles' authors identified as exponents of the creative use of language everywhere, in every newspaper they read, every television program they watched and every Internet site they were visiting regularly*.[40] As one of them added, reading these two

[38] This, i.e. why they chose this particular research area, was actually one of the first questions I asked.

[39] Like all other materials, also these two had been shared and read by both students.

[40] In these two articles, the authors discuss the linguistically creative behaviour of television journalists working on a popular news program

articles also made her remember *how she played with language herself when she was editor of the classroom newsletter in secondary school*. As she claimed, *it is based on this particular experience that when she was doing her reading assignment from the book* from which I had previously cited on several occasions, Dörnyei, she had immediately spotted the fragment in which the book's author is talking about (Dörnyei, 2007: 73) the moment in which 'we realize that the topic could be further pursued on the basis of relevant experiences we had in the past.'[41]

Seeing the expression *played with language* I quoted above after one of my informants, most linguists would immediately realize 'whose' creativity she meant. As I myself established later on drawing on state-of-the-art on creativity in language and literature that I was going to use for the purpose of comparing the topics pursued by generics with the work conducted by linguists, all twentieth century work in this area can be divided into three distinct strands (Pope and Swann, 2011). First, there is 'Chomsky's creativity' – creativity that – as one can read in every beginner-level textbooks in linguistics such as Yule (1996) or Fromkin, Rodman and Hyams (2003) – entails the ability to create sentences one has never heard before. Next, as Pope and Swan continue to explain, there is this literature in which all 'language

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and, in the case of the second one, the creative use of language in press journalism.

[41] This book was one of the texts I was using with them during a course both attended. In the fragment in question, the author (Dörnyei, 2007: 73) discusses the major sources of 'inspiration for good research topics and questions', concentrating on a situation in which 'something we read "rings a bell"' in the sense that it sounds familiar to what we experienced in the past.

in use' is seen as 'a relatively creative process in which language users constantly refashion linguistic and other communicative resources rather than reproducing static rules of language use' (p. 11). Finally, for some of those into linguistic creativity, this phenomenon entails 'a type of language use that stands out and, however fleetingly, draws attention to itself' (p. 14). Work carried out by scholars in this last group, as Pope and Swann continue, denotes all phenomena that Jakobson subsumed under the poetic function of language: 'an occasion in which there is a "focus on the message for its own sake" (1960: 356)' and which consists in 'the highlighting of the linguistic form of a message'. Research conducted along these lines attempts to document 'the poetic nature of "common talk"' (Pope and Swann, 2011: 1); to demonstrate the pervasiveness of this type of language in non-literary texts and, not infrequently, to show how such creative language practices vary depending on the specific cultural context. The range of phenomena targeted within this strand includes metaphor, humour, instances of intertextuality or word play – which well explains why my informants (and those they overheard) talked about this study area as something that should be *much fun to do*.

Regarding the justification that one of the students gave in response to my question concerning their decision to start familiarizing themselves with an area that they termed as 'generic creativity research', two background texts were pointed at. In the first of them, Lyons (1981), the author discusses the relationship between general (i.e. theoretical) and descriptive linguistics; on the analogy of what he claims for these two, the student in question figured out that *although linguists are principally concerned with one specific form of creativity – the one*

that manifests itself through the use of language – the issue she needs to address first involves creativity in the most general sense. This is because the question 'What is creativity' – paraphrasing Lyons (1981: 3) again – 'carries with it the presupposition' that each of the forms of creativity is a 'specific instance of something more general'. And, like a linguist who 'wants to know whether all natural languages have something in common not shared by other communication systems, human or non-human, such that it is right to apply to each of them the word "language" and to deny the application of the term to other systems of communication' (*ibid.*), so a linguist who, like herself, is interested in linguistic creativity *must know the criteria that will allow her to decide on the range of phenomena which fall outside the category and those which, at best, are located at its boundaries, as well as whether all instances of linguistic creativity have something in common with instances of creativity observable in other areas of life: theatre, film, dancing music, science or even sports*. And, as my informant figured out, *the only way in which this knowledge was to be obtained was to look for sources that have the 'bare' creativity in their title*. The second source she mentioned, Kussmaul (1995), strengthened her resolve: as its author claimed, 'if we want to talk about creativity in translation' (p. 40) – creativity meaning here, as Kussmaul explains on the previous page, 'unpredictable non-institutionalised use of language', i.e. much the same phenomena that these two students see as their future object of study – 'we must take into account the results produced by *creativity research*' (Kussmaul, 1995: 40; my emphasis).[42] In other

[42] The student came upon this source during her master's seminar; the fragment she is referring me to in order to justify her decision to start

words, as the two students concluded, when one looked closer at what these two background texts were saying, *there was no way for their 'theoretical chapter' not to contain a summary of research conducted by generics* – scholars interested in explaining the nature of creativity irrespective of what form it has assumed.

The first encounters with creativity research suggested that what they had reported during our talks as *research into the formative years of the creator* and *research into adult creativity* in fact belonged with a separate research strand generics called 'research on the person of the creator'. In turn, what they were talking of as *work on what is going on in the creator's mind*, belonged in a strand collectively referred to as 'process studies'. The fragment I cite below comes from an article that confirms that these two terms, 'person' and 'process', is how its author, Mel Rhodes, originally referred to these two strands as well as what other two research strands he had distinguished:

> About five years ago I set out to find a definition of the word creativity [...]. In time I had collected forty definitions of creativity and sixteen of imagination. The profusion was enough to give one the impression that creativity is a province for pseudo-intellectuals. But as I inspected my collection I observed that the definitions are not mutually exclusive. They overlap and intertwine. When analyzed, as through a prism, the content of the definitions form four strands. [...] One of these strands pertains essentially to the person as a human being. Another strand pertains to the mental processes that are operative in creating ideas. A third strand pertains to the

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reading the literature on creativity (creativity research, as Kussmaul calls it) has a chapter devoted to creativity demanded whenever a translation problem one has encountered cannot be solved by means of standard translation strategies.

influence of the ecological press on the person and upon his mental processes. And the fourth strand pertains to ideas. Ideas are usually expressed in the form of either language or craft and this is what we call product. Hereafter, I shall refer to these strands as the four P's of creativity, i.e., (1) person, (2) process, (3) press, (4) products. (Rhodes 1961: 306–307)

A much later publication that these two students referred me to, Runco and Pagnani (2011), informed them that those who came after Rhodes and who concentrated on the person of the creator were mainly interested in personality traits such individuals possess. This can be clearly seen in Figure 1 that I am reproducing below as a graphic presentation of the field of generic creativity studies as it was in 2011. As the same source suggests, the field has, in the meantime, acquired two new categories, research on potential and persuasion.[43] At the same time, quite a considerable amount of attention is currently being paid to establishing how the elements of this expanded 'six P' model interact with one another,[44] rather than discussing them in isolation:

[43] The term 'potential' is in this literature used in its standard dictionary meaning, to denote every person's ability to create – an ability one may, however, never use, even if the environment in which one functions supports one's creative streak. In other words, even though functioning in a supportive environment (or the possession of particular cognitive capacities and personality traits) is necessary for actual creative performance and achievement, it is not sufficient, all of them being indicators of the creative *potential* and not creativity. As for 'persuasion', studies in this category (with Simonton [1995] cited as the main representative) revolve around the idea that both the creative individuals and the concrete objects and ideas through which they communicate with other people have the ability to change the way others think.

[44] This is in conformity with how Rhodes saw it – press is, in his account, defined as 'the relationship of human beings and their environment' (Rhodes 1961:305) – a view on which creativity is not a matter of either

Creative Potential	Creative Performance
Person	**Products**
Personality traits and characteristics	Ideas
	Patents, inventions, and publications
Process	
Cognition	**Persuasion**
	Historical reputation
Press	Systems
Distal	Individual-field domain
Evolution	Social attributions
Culture and zeitgeist	
Immediate	
Places, settings, environments	**Interactions**
	State x trait
	Person x environment

Fig. 1. The field today: major research strands within the study of creativity (after Runco and Pagnani, 2011: 64)

But even though, as my two informants were to learn from their sources, Rhodes' alliterative scheme is 'still widely cited, even 50 years later' (Runco and Kim, 2011: 534),[45] this, as we remember, is not how they classified

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the person or the environment in which this person is functioning, but contingent upon a meaningful *interaction* between the two. Other works that my two informants referred me to also stressed that Rhodes' understanding of this concept (press) is very modern and that many contemporary creativity scholars (e.g. Csikszentmihalyi, 1988), define press in a very similar manner as he did.

[45] In addition to the two publications listed above, I also found it in, for instance, Brown (1989), Richards (1999) or Runco (2004), all hailed by their colleagues as distinguished creativity researchers. However, and contrary to what one might assume, a linguist wishing to find more on what interests him the most should not assume that all this information will be retrievable from work that has the term 'product' in the title.

creativity research and the topics they found 'over there'. Below, I am preserving their categorization (as well as the minor distinctions they were relying on while categorizing the literature on adult creators), starting with the first set of topics on the basis of which these two students had reached the 'nothing in there for us' verdict – work on *what they were like as children* – a category that generics are more likely to refer to as 'research into the early predictors of creative eminence'.

2.2.1 Topics recreated from research into the early predictors of creative eminence

As mentioned in passing above, research aimed at identifying the *early predictors of creative eminence*[46] in fact belongs to the overarching 'person' category. Studies conducted along these lines concerned themselves with factors such as the potential relationship between *creativity and birth order* or, more specifically, to what extent being, say, the firstborn or the middle child increases the probability of having a successful creative career later in life.[47] Next, there

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Since, following Rhodes, the remaining three terms are also implicit in the definition of creativity (Rhodes, 1961: 305), information on product, as far as I could observe on the basis of the sources I had reviewed, is often hidden in works that do not have the term 'product' in the title. Not infrequently, too, what is found in the description of the process applies to the product, and vice versa.

[46] Italics in all subsections of section 2.2 mean that these are the research topics that my two informants recognized as those they had encountered when they were themselves reviewing the work carried out within the field in question.

[47] The most notable 20th century example of work in this category is Roe (1952) – in her work, 39 out of 64 of the individuals she concentrated

comes a range of studies in which creativity is linked to such circumstances as *being born prematurely* or being *born after the death of one of the parents*,[48] both often discussed together with other factors that can be subsumed in the all-encompassing '*family background*' category, in which one also sees topics such as *a weak* or *absent father*, the condition of *being orphaned* (including *parental suicide*) or the *relations between one's father and mother* as related to creativity.[49]

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on were first-born children. In the preceding century, the primacy goes to Galton – according to Baer *et al.* (2005), the first scholar 'who [...] speculated about the special eminence of firstborns in 1874' (p. 67). As pointed by Baer *et al.*, work in which birth order is presented as one of 'the many variables suspected to affect the development of creativity' (*ibid.*) can, basically be divided into three categories: (a) studies 'showing that firstborns are less creative than laterborns (e.g., Eisenman, 1964; Seay, 1985; Staffieri, 1970)'; (b) empirical work pointing at firstborns as 'more creative than laterborns (e.g., Eisenman, 1987; Eisenman & Schussel, 1970; Lichtenwalner & Maxwell, 1969; Schubert, Wagner, & Schubert, 1977)' and, finally, (c) 'studies [that] support neither position obtaining no significant differences in creativity between first- and laterborns (e.g., Albaum, 1977; Cicirelli, 1967; Datta, 1968; Wilks & Thompson, 1979)'.

[48] One of the best known examples of eminent individuals who would satisfy both criteria was Isaac Newton, who was 'born prematurely, some three months after his father's death' (Krebs and Shelley, 1975: 110).

[49] Research into these topics can also be looked for under or *family factors* or *family environment*, the latter term employed by, for instance, Goetzels and Jackson (1961). Regarding the studies in which some of these topics have been raised, a weak or absent father has been discussed by, among others, Albert (1971), Goertzel, Goertzel and Goertzel (1978) or Martindale (1972), whereas the description of the relations between one's father and mother as related to creativity has been investigated by Siegelman (1973). Newton's highly ambivalent feelings towards his mother who, as Krebs and Shelley (1975: 110) point out, 'remarried just after his third birthday, leaving him in the care of his grandmother, a betrayal which he never forgave', may serve as a good example of what typical findings produced by 'family background' studies may look like.

Since research conducted in this vein often points at predominantly negative factors, another term found among those employed for work on early predictors of creativity is the term '*family trauma*'. The list of topics pursued in this subcategory includes *alcohol abuse by one or both parents* (or *caretakers*), the ensuing *physical, mental and sexual abuse*, *divorce*, *poverty*, and other *pathological problems* (e.g. *mental illness*) *suffered by one's parents and/or siblings*.[50] Such '*unhappy home environments*', as Simonton (1986: 17; emphasis added) calls them, not only presage creativity, but also correlate with what career path will be pursued.[51]

As regards specific topics investigated in connection with what Simonton calls 'better *home conditions*', one of these involves being raised in an environment characterized by 'an intellectual ambience in the home that projected a love

[50] Some good examples of work in this category include Andreasen (1987), Andreasen and Canter (1974) or Karlsson (1978); as for the claims made within them, one may cite Andreasen and Canter (1974: 129), who argue that 'creative writers tend to have a high prevalence of what would normally be called psychiatric illness [...] and [...] their primary relatives also have a high prevalence of affective disorder.' Examples illustrating the purported relationship between creativity and *psychopathology in one's family* are not uncommon: e.g. in Karlsson (1978: 136) we find a mention of Robert Frost, whose sister suffered from mental illness; in Gavin (2011), Katherine Hepburn, whose brother committed suicide when she was only 14 years old is given as an example of an individual who suffered '*trauma in early life*' (p. 600; emphasis added); finally, in Kozbelt, Michelangelo, whose father – an impoverished aristocrat – frowned upon his decision to develop his talents, as both painting and sculpting were, at those times, considered manual labour (Kozbelt, 2011: 120).

[51] As he claims (Simonton, 1986: 17), unhappy homes often produce 'authors of either fiction or nonfiction [...] while better home conditions produce scientists, religious leaders and philosophers, labor leaders, editors and publishers and reformers.'

of learning and a respect for knowledge' (Prentky, 1989: 253), with one or both parents being professionals.[52] Next, being raised in a psychologically *androgynous* fashion has been investigated fairly extensively.[53] Both topics can be classified as members of a yet broader category, dubbed either *parental attitudes* or *parenting styles*.[54] *Family size* has also played an important role in discussions

[52] The authors of works discussing such happier home environments will also, typically, illustrate their case with specific examples – a tendency that may be illustrated with the aforementioned Gavin (2011), Pate (2011) or Bathurst (2011), the first one pointing at the role 'family support' (p. 596) played in Hepburn's life, the second (Pate, 2011: 627) speculating on how discussing growing up 'in a family with some unconventional attributes [...] may have contributed to her [G. Hopper's] own acceptance of alternatives to the usual ways of being and doing' and the last one (Bathurst, 2011: 581) arguing that Haydn may not have achieved this kind of eminence had it not been for his family who, upon recognizing how talented he was, sent him to 'live with a relative [...] who [...] worked [...] as a schoolmaster and choir director. Here Haydn learned the violin; a talent for singing also noted by the director of music at St Stephens cathedral'. Other work which seems to corroborate such findings includes Roe (1951, 1952, 1953, 1956).

[53] The higher than normal incidence in creative people of cross-sexual or androgynous interests (i.e. interests untypical for one's own sex) has been pointed out by many generic creativity scholars, with Crutchfield (1962) and Helson (1971) concentrating on those present in women, and Barron (1957), Kanner (1976) or MacKinnon (1962) discussing those as detected in creative males.

[54] Among the work taking up the topic of parental attitudes and/or parenting styles, one will find both such earlier work as Baumrind and Black (1967) and such more recent contributions as Albert and Runco (1989), Jensen and Kingston (1986), Michel and Dudek (1991), Sheldon (1995) or Yeh (2004), to name a few. As some of these studies suggest, a parenting style which allows for little autonomy hampers creativity, whereas a home in which one is given a significant amount of independence fosters it.

concerning factors that positively correlate with creativity and so has one's *family's socio-economic status*.[55]

Another distinct research strand within the all-encompassing category of early predictors of creativity is what can be subsumed under the label of *characteristics of creative individuals as children*. This category includes not just their *personality/mental traits*,[56] but also their *attitude towards school*, their *leisure activities* and *interests*, the *speed of social development* and, in general, all that pertains in any manner to *social participation* (e.g. participation in extracurricular activities) and the level of *social acceptance* they enjoyed.[57] The impact of *formal*

[55] The first topic has been discussed by Jensen and Kingston (1986), Michel and Dudek (1991), and Simonton, the latter often cited in connection with his finding that 'poets and nonfiction authors' typically recruit from small, whereas 'artists and reformers' from large families (Simonton, 1986: 18). As for research trying to discover a relation between creativity and the socioeconomic status of the family in which one was growing up, it includes studies such as Deutsch (1967), Gallager (1975), Getzels and Csikszentmihalyi (1976), Haley (1984), Reissman (1963), Simonton (1986) or Torrance (1974, 1977), to name a few. In some of these studies (e.g. Haley, 1984), the family's socioeconomic status is determined indirectly, with for instance, social stratification performing in the function of one of the indices of how well off one's family is or was.

[56] Following Brown (1989: 4), *traits* are usually understood as 'internal predispositions toward certain behaviors that are [...] stable over a considerable period of time, show reliable individual differences, have some presumed or demonstrated genetic loadings, and predict particular behaviors [in our case creativity] in a variety of settings.'

[57] All of these topics can be tracked down to the work of Cobb (1977), Cox (1926), Roe (1951, 1952, 1953, 1956), Goertzel and Goertzel (1962), Goyal (1973), Helson (1965), Klein (1975), Torrance (1965) or, more recently, the work of Root-Bernstein and Root Bernstein (2006). As for some of the findings produced, Roe claims that those to achieve eminence later in life were, on the one hand, independent and self-sufficient, but, at the

education on creative behaviour (e.g. Burgett, 1982; Simonton, 1976; 1983; 1986) has also been explored, including the much famed *dislike for formal education* (which, according to Simonton [1984], is usually paralleled by a *preference for self education*),[58] and so have such related issues as the possible correlation *between success at school* and creative achievement.[59] Finally, the issue of *special schooling* and whether it correlates with eminence has been investigated.[60]

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same time, introverted, shy, and unwilling to socialize with their peers; avid readers who enjoyed school and revered their fathers (usually well educated professionals) who instilled in them a love of learning and/or a respect for knowledge. In turn, as observed by Milgram (1990: 222), gifted children often devote their free (i.e. extracurricular) time to activities that either develop their interests or simply satisfy their curiosity (Milgram, 1990: 222), whereas Kumar (1981) points out that high-creative students have different interests than low-creative ones.

[58] Another variable investigated has been the amount of formal education and how it translates into the level of eminence and the discipline chosen. Simonton (1976) constitutes a good example of work in this first category, with his claim that those with a moderate amount of education may prove to be the most creative. In turn, in Simonton (1986) we find a claim that 'scientists, psychiatrists, politicians and reformers have the most formal education, while athletes, labor leaders, business persons, mystics or psychics, artists and performers the least' (p. 18).

[59] Studies on this topic include Ausubel (1978), Getzels and Csikszentmihalyi (1976), or Mac Kinnon (1960), with one of the conclusions reached being that creativity does not necessarily correlate with hard work (de Bono, 1971; Simonton, 1984) and that 'when one is a grown-up academic achievement, inasmuch as mastery of a given subject-matter discipline does not in any way presuppose conspicuous capacity for making original contributions to that discipline' (Ausubel, 1978: 184).

[60] One of the findings produced in connection with this topic is that poets are 'the least likely to have had any kind of special school experience' (Simonton, 1986: 18), in contrast to 'artists and composers' who typically have spent many years 'in an art school or conservatory'.

A considerable number of generic creativity scholars also concerned themselves with the so-called '*nature – nurture* issue'. Among *genetic factors* investigated in relation to creativity one finds *handedness* (e.g. Hattie and Fitzgerald, 1983; Katz, 1980; Peterson and Lansky, 1974),[61] whereas research on such early environmental factors as *school* or *home environments* (which may be conducive or detrimental to subsequent creativity) constitute the 'nurture' part of the debate.

Finally, discussions concerning the early predictors of eminence have also addressed such research topics as one's *place of origin* and the *religion* into which one has been born.[62] *Prodigies* (whose talents are much superior to what would be normal for a certain age) have

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Finally, as Simonton argues successful business people and explorers often are subject to the difficult experience of being sent away to a boarding school early in life.

[61] Being right- or left-handed is here considered one of the 'relatively immutable birth characteristics of individuals' (Woodman and Schoenfeldt, 1989: 81), alongside sex and race, discussed in, among others, Cole and Cole (1973), Gupta (1981), Kershner and Ledger (1985), Maccoby and Jacklin (1974), Raina (1980) or Richardson (1986). On the whole, however, the entire body of work on *the hereditary nature on creativity* seems too small to be treated as of any significance (Martindale, 1989; Penzullo, Thorsen and Madaus, 1972; Vanderberg 1968) and, as pointed out by Martindale (1989: 227), the list of serious work into this issue is very small (the only four studies he cites including Barron [1969], Olive [1972], Reznikoff *et al.* [1973] and Vandenberg [1968]), whereas the majority of studies discussing it (e.g. Scheinfeld [1972] or Ziegler and Farber [1985] represent *popular* rather than scientific treatment.

[62] One of the findings stemming from many meticulous analyses of the biographies of eminent people is that '[n]onfiction authors were more prone to come from urban centers, military figures from small towns' (Simonton, 1986: 17). In turn, 'those from atheistic or agnostic backgrounds have the best chance of going into the military, non-fiction writing, science or revolution' (*ibid.*).

also attracted a considerable amount of attention, with some (e.g. Agassi, 1985) going as far as to claim that all eminent creators were prodigies. The fact that prodigies typically start performing at a relatively young age has, in turn, resulted in studies devoted to the reception of one's work when one is still a young writer/composer. In many of those (e.g. Lenneberg, 1980) the myth of an *unappreciated young genius* is explored at length.

2.2.2 Topics recreated from research into adult creativity

Five distinct research strands within research into adult creativity that my informants distinguished on the basis of the sources found and read included (1) research on *personality traits* as correlated with creativity; (2) research on the possible relationship between *creativity and mental illness*; (3) research on *the cognitive aspects of creativity*; (4) research into the so-called *press* factors and, finally, (5) research into *creativity types*. While briefly presenting the topics pursued within each of them, I again tried, whenever possible, to shift all information that I considered of secondary importance to the footnotes, reserving the main text for the topics alone – a strategy which I adopted in order to make the processing of the summary by my two informants as easy as possible.

2.2.2.1 Personality and motivational factors

Research on *personality and motivational factors* has been so intense that here, too, all work conducted in this vein falls into a number of distinct subcategories

(Woodman and Schoenfeldt, 1989). The first of them is work 'by personality theorists', the underlying assumption being that creativity can be explained 'in terms of comprehensive *theories of personality*' (p. 78; emphasis added). This work, as Woodman and Schoenfeldt continue on page 85, can further be subdivided into research that had been undertaken within *the psychoanalytic*, *humanistic* and *behaviouristic traditions*.

The second subcategory these two scholars distinguish is studies conducted with a view to determining which 'personality and *biographical characteristics*' have characterized 'eminent creative individuals and/or creative activity in a variety of fields' or how 'a few specific personality dimensions' relate to 'creative behavior' (*ibid.*, p. 78). Examples of 'investigations in this area' that Woodman and Schoenfeldt refer their readers to include the 'writings of Barron (1969), Helson (1971), MacKinnon (1965; 1970), Roe (1953), and Simonton (1977; 1986)', all further characterized as studies that 'have attempted to catalogue *personality correlates* of creative productivity as well as biographical data that might be predictive of later creative behavior.' In some of them, the authors concerned themselves with 'similarities and differences in creativity across broad fields of endeavor, such as art, literature, music and science'; in others, 'more narrowly defined disciplines such as architecture, physics, and mathematics' (Woodman and Schoenfeldt, 1989: 78) have been targeted.[63]

[63] Specific examples entail the work of MacKinnon who, at one point, tries to establish whether more and less creative individuals representing architecture will display any personality differences, whereas Helson concentrates on personality traits found in mathematicians; however, female mathematicians only.

To help the reader form an idea of what the typical results of studies in this category actually are,[64] Woodman and Schoenfeldt (1989: 78) offer a citation from Barron and Harrington (1981: 453; emphasis mine), who claim that after almost two decades of intense research into the personality of the creator, one is capable of talking about a 'fairly stable set of *core characteristics* [...] [that] continued to emerge as correlates of creative achievement and activity in many domains.' These listed in the short citation include 'high valuation of aesthetic qualities in experience, broad interests, attraction to complexity, high energy, independence of judgment, autonomy, intuition, self-confidence, ability to resolve or accommodate apparently opposite or conflicting traits in one's self concept, an finally, a firm sense of self as "creative".' More or less the same results can be claimed for studies that Woodman and Schoenfeldt (1989: 78; emphasis mine) describe as ones focusing on '*specific personality dimensions* related to creative behavior' (those listed including Barron and Harrington (1981), Bolen and Torrance (1978), Dellas (1978), Faschingbauer, Moore and Stone (1978) and Solomon (1985)). For instance, following the first pair of authors, the readers will be able to assume that such 'heavily researched traits' as *psychological femininity* and *masculinity* are 'thought to be important factors in creativity'. In turn, those who decided to survey the remaining ones would be able to learn whether creativity is related to self-esteem, dogmatism, narcissism and, finally, a personality dimension psychologists term as 'locus of control' – a concept that refers to our beliefs concerning

[64] The reason for which I have decided to cite some of these results is that many of the traits listed above have been treated as research topics in their own right and investigated independently of others.

whether the outcomes of our activities are a result of our own actions or – as Woodman and Schoenfeldt continue to explain – 'governed by chance, luck, fate', i.e. factors upon which we basically have no control (1989: 85). A brief summary of studies in the last category informs that subjects identified as 'internal LOC [locus of control] individuals' are more creative than 'external LOC' individuals or that females with external LOC will achieve higher fluency scores for creative performance in a specific domain than external males – results reported after Aggarwal and Verma (1977) and Yardley and Bolen (1980). Yet another category of non-cognitive factors which can, possibly explain differences in creativity, research on *interests*, is also discussed (*ibid.*, p. 85) and exemplified with the work of Bachtold (1983). Regarding results that one may describe as typical for this type of studies, they may, for instance, consist in discovering what interests are typically displayed by highly creative individuals and whether uncreative persons' interests differ from those displayed by eminent creators.[65]

As for the second large research topic investigated, *motivational factors*, it had been isolated on the assumption that possessing certain personality traits is

[65] In addition to the terms used above and reproduced after Woodman and Schoenfeld and some of the authors they cite, sources such as (Guilford, 1950: 444) also use the word *traits* (as when he is talking of a 'pattern of traits that are characteristic of creative persons'). On the whole, however, Woodman and Schoenfeld on which I have been relying extensively above, as well as Martindale (1989) give one a fairly comprehensive idea of work on personality, the latter also including a reference to a few review articles containing an overview of major work in the category in question, for instance Dellas and Gaier (1970), Wallach (1970), Stein (1974) and Taylor and Getzels (1975) (Martindale, 1989: 211).

not enough. As further explained by Martindale (1989: 213), creating would not be possible had it not been for perseverance, ambition and/or high levels of self-confidence: in short, features responsible for maintaining one's motivation at a very high level. That such features do seem necessary, suffice it to consider such relatively frequent creative activities as poetry or scientific writing (*ibid.*) as well as the fact that not all creative activities and ideas meet with a positive reaction. Finally, as Martindale continues to justify the interest in this specific research category, when creatively-minded people set off on their chosen career path, it is often with a resolve not to be just a poet, but 'to be a great poet' (*ibid.*) – a lack of inhibition known to provoke an immediate adverse response (Martindale, 1989: 225).

This disinhibition, as Martindale further points out, is also immediately visible when one analyzes such motivational/personality traits lists as, say, Barron (1952); a 'common factor' detectable in such traits as 'gloomy, loud, unstable, bitter, dissatisfied, pessimistic, [and] irritable'. The same 'lack of inhibition in one sense or another' can be observed when we turn to Harrington (1975); a conclusion Martindale reaches on the basis of such adjectives as 'active, alert, ambitious, anxious, argumentative, artistic, assertive, capable, clear thinking, clever, complicated, confident, cynical, demanding, egotistical, energetic, enthusiastic, hurried, idealistic, imaginative, impulsive, independent, individualistic, ingenious, insightful, intelligent, interests wide, inventive, original, practical, quick, rebellious, reflective, resourceful, self-confident, sensitive, sharp-witted, spontaneous, unconventional, versatile, *not* conventional, and *not* inhibited.' Finally, the fact that creative people describe themselves by means of

such adjectives as confident, egotistical, and self-confident means that many features they have are 'present in an exacerbated or extreme form' (Martindale, 1989: 222), a tendency which led authors such as Lombroso (1901) to talk of the '"morbid vanity," excessive preoccupation with self, and "megalomania" of the creative genius.' The same, as Martindale continues, concerns features we largely perceive as positive. While many of us are ambitious, highly creative people are extremely ambitious; while we all display curiosity and enthusiasm they, by contrast, are very curious and extremely enthusiastic (*ibid.*).[66] On the whole, however, since quite a few of these results have been obtained by focusing on 'extreme cases' (Martindale, 1989: 225), '[i]t is not clear at present how far, if at all, we should generalize from them' and whether the same results would emerge from more systematic research of individuals who have not achieved such high levels of creative eminence.

[66] The remaining part of Martindale's review is devoted to methodological issues, for instance determining what motivational factors aid creativity by asking creative people to describe themselves, with Gough (1979) and Harrington (1975) given as examples (Martindale, 1989: 222). Another source my informants consulted, Hocevar and Bachelor (1989), as well as other sources I managed to find would allow one to expand the list of work in these two categories by Amabile (1983a and b), Barron (1968), Cattell (1971), Cattell and Eber (1968), Davis (2003), Domino (1974), Drevdahl and Cattell (1958), Farley (1986), Feist (1991; 1999), Gough (1957) Gough and Heilbrun (1965), Hall and MacKinnon (1969), Harrinton, Block and Block (1987), Heist, 1968, Helson (1965), MacKinnon (1962), Nicholls (1972), Renzulli, Hartman and Callahan (1977), Rothenberg (1979), Runco (2004), Runco and Bahleda (1987), Storr (1988), Torrance (1962) or Welsh (1986). Regarding a list of authors who have suggested some of the listed inventories 'as a potential measure of creativity', those cited by Hocevar and Bachelor (1989: 55) include Domino (1970), Gough (1979), Lacey and Erickson (1974), Smith and Schaefer (1969) and Welsh (1977).

2.2.2.2 Creative process

Judging by what my informants had found in Dacey (2011), studies concerning 'the nature of *creative thinking*' are a nineteenth century development (p. 608; emphasis added); before that, 'conjecture about the origins of creative productivity had been impeded by the belief that it is too obscure, too multifaceted, too ethereal to allow for intellectual analysis of its process.' Dacey does not specify which study he means while talking about 'the first effective scholarly inquiry' in this category that had been 'undertaken only a little over a century ago', but based on what the two students have found in Vernon (1989), he may have been talking about Helmholtz (1903), as it is this source that Vernon (1989: 96) identifies as one of 'the earliest cognitive analyses' to have been conducted, alongside Poincaré (1924), Hadamard (1945) and, finally, Wallas (1926) (*ibid.*).

In any case, when Wallas (1926) proposed how to term the four successive *stages of the creative process*, he *was* 'drawing heavily upon the observations of Helmholtz (1896)' (Martindale, 1989: 214). The four terms in question, each of them representing a research topic in its own right, can be recreated from the fragment below – a fragment which I quote in its entirety because it well prepares us for the terminological diversity that one will find in works representative of this research area, even though it still contains no reference to the two popular expressions that are used interchangeably with *illumination* and *inspiration*: the famous *Eureka* or *'Aha' moment*:

Helmohltz (1896) noted that, when confronted with a problem, he as often as not worked intensively on it but came up with

no solution. This is the *preparation* stage: elements presumed to be relevant to the problem are learned and/or manipulated in an intellectual manner. When progress was not made, Helmholtz set the problem aside. This is the *incubation* stage. After some period of time, often with no clear cause, the solution simply came to his mind. This is the stage of *illumination* or *inspiration*. As often as not, it was not the elements that he worked with during the preparation stage that were combined in the flash of illumination, but, rather, some element not before considered relevant that provided the key. After inspiration, the *verification* stage involved his subjecting the idea to scrutiny and putting it into its final form. For a scientist, this might involve devising and conducting an experiment. For a poet, it might involve putting an image into a form consistent with stylistic rules of the genre within which he works. (Martindale, 1989: 214; emphasis mine)

The often-cited theory of Wallas (1926) is, however, not the only model in which the creative process is being presented in terms of a few constitutive stages. What is more, those proposed also differ in terms of the number of stages hypothesized, which means further terminological profusion. To illustrate, suffice it to cite from the two-tiered model proposed by Chand and Runco (1992), which, in view of what we find in Runco and Pagnani (2011: 66), has three components on the primary tier (*problem finding*, *ideation* and *evaluation*) and two on the secondary tier (*knowledge* and *motivation*), each constituting a separate research topic in its own right. As for the one developed by Mumford and colleagues, it, in turn, proposes 'eight critical processing activities' (Mumford and Vessey, 2011: 602) involved in working through problems calling for creative thought (*problem definition*, *information gathering*, *concept selection*,

conceptual combination, *idea generation*, *idea evaluation*, *implementation planning* and *solution monitoring*). As for the so-called Geneplore model, two main processing phases had been distinguished. The second of them, *an exploratory phase*, consists of such specific *mental processes* as '*retrieval*, *association*, *synthesis*, *transformation* [...] *analogical transfer* [...] and *categorical reduction* (i.e. mentally reducing objects or elements to more primitive categorical description)' (Sternberg *et al.*, 2005: 356–357; emphasis added). The processes distinguished in the first one, dubbed *a generative phase*, had been known as *preinventive structures* (ibid.).[67] A careful comparison of individual contributions on what is going on in the creator's mind would, thus, reveal that what Wallas called preparation and verification, other authors refer to as *problem finding* and *evaluative thinking* (Runco and Pagnani, 2011: 66); what some 'writers have called *ideational fluency*, *adaptive flexibility*, or the *ability to generate logical alternatives*' may, in other works, be called 'the operation of "*divergent production*"' (Woodman and Schoenfeldt, 1989: 79; my emphasis). The term 'creative processes' has also been replaced with other names: when an insider into generic creativity research comes across expressions such as *process models*, *stage models* or *componential models*, s/he knows that what these

[67] The model's description can be found in the 'work of Finke, Ward, and Smith (1992) [...] Smith, Ward, & Finke, 1995; Sternberg & Davidson, 1994 [and] Ward, Smith, & Finke, 1999' (Sternberg *et al.*, 2005: 356); as they point out, this model is representative of approaches which try to simulate 'creative thought' (another term which, at the same time, may stand for one of the research topics pursued within this strand) using human subjects and not computer simulations.

authors in fact mean is processes that take place in the mind of the creator (Runco and Pagnani, 2011: 66).[68]

In addition to research topics that had been taken up in order to shed more light on distinct *stages of the creative process*, there are quite a few that one may associate with what Woodman and Schoenfeldt (1989: 83) call *cognitive factors*. Among topics investigated within this line of research, one finds *divergent production*,[69] which is believed to involve such cognitive processes as '*fluency*, *flexibility*, *originality*, and *elaboration'* which, taken together, constitute 'the *cognitive components* of creative thinking' (*ibid.*; emphasis mine). As for those taken up in connection with a 'converging line of research' on cognitive styles (Woodman and Schoenfeldt, 1989: 84), they include, among others '*evaluation*, *convergent production* [...] *memory* and *cognition'* (p. 83; my emphasis). Work carried out in connection with the so-called 'general cognitive style', which Woodman and Schoenfeldt (1989: 83) define, after Shouksmith (1970: 149), as '*the amalgam of strategies* that he [i.e. an individual] typically adopts in his attempts to solve problems with which he is faced', also presages a multitude of highly specific topics that had been taken up by scholars active in this specific research area.[70]

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[68] The ones identified by them as 'process models' include the aforementioned Chand and Runco (1992) and Wallas (1926), whereas Amabile (1990) and Baughman and Mumford (1995) are given as examples of the remaining two categories.

[69] The main representative of this subcategory is Guilford (1967, 1975, 1977, 1983, 1984).

[70] According to Woodman and Schoenfeldt (1989: 84) '[o]ne of the most influential works on cognitive style' is Witkin *et al.* (1962); a publication that stimulated the work of Dellas and Gaier (1970),

Scholars who focused on the creative process provided inspiration for all research attempts which share a common element of seeing creativity as a response to a problem of some sort. Subsequent work in this category concerned itself with determining the *types of problems* that call for creative solutions, as a consequence of which creativity was defined as a 'response to an ill-defined [...] rather than a well-defined problem' (Benack, Besseches and Swan, 1989: 203). Since research in this area has also been very intense, a further proliferation of terms seemed only a matter of time, which can easily be illustrated with Amabile's (1983a), distinction between 'heuristic' and 'algorithmic' problems. Creative processes were here described in terms of one's ability 'to *move away* from past ways of thinking, to "break mental sets"' (Benack, Besseches and Swan, 1989: 203), with the work of Newell *et al.* (1962), Henle (1962) and Stein (1974) cited as studies which represent this way of viewing creative thought. Alternative descriptions of the creative processes as 'the forming of relations among things formerly disconnected' (*ibid.*) or the ability to bring together elements formerly regarded as contradictory, attributed to, in the first case, Koestler (1964) and Henle (1962) and, in the second case, Kuhn (1963) and Rothenberg (1976), contain further more specific topics discussed, such as *Janusian thinking*.

Del Gaudio (1976), French (1965), Noppe (1985), Quinn (1980), Stuart (1965) and Wertheim and Mednick (1958). The work on 'other cognitive factors' is represented by Firestien and Treffinger (1983), who focused on convergent production. In addition to those, other studies in the 'cognitive style/ability' category listed by Woodman and Schoenfeldt (1989: 78) include Basadur and Thompson (1986), Carroll and Maxwell (1979), Kershner and Ledger (1985), Mednick (1962), Noppe and Gallagher (1977), Spotts and Mackler (1967) and, finally, Suler and Aiziello (1987).

Another set of issues raised in connection of the development of creative thinking is those which have been proposed in Gruber's (1981; 1984) '"*evolving systems approach*" to creativity' (Benack, Besseches and Swan, 1989: 206; emphasis added). On this view, creative achievement is the result of 'a lifelong organization of work and life leading toward and supporting the evolution of this [i.e. novel] point of view' (*ibid.*), whereas each creative person can be seen as 'being comprised of three organizational subsystems: the organization of knowledge, the organization of affect, and the organization of purpose', each of these constituting a research topic in its own right.[71]

Finally, research discussed under the all-encompassing term 'process studies' includes a substantial amount of work that went into establishing in what ways creative production is dependent 'on general *intellectual ability*' (Vernon, 1989: 97; emphasis mine). When general *intelligence* is targeted, the focus usually is the intelligence of highly or moderately creative individuals;[72] when one is

[71] Other works discussing the 'evolving systems approach' are Gruber and Davis (1988) and Gruber (1989).

[72] Early work on the relationship between intelligence and creativity showed that if 'creative production' does indeed depend on this 'general intellectual ability, then this tendency is more visible 'in scientists than in artists' (Vernon, 1989: 97). To illustrate, he cites the work of Cox (1926), in which classifying the samples by type of achievement showed that 'philosophers were most able with mean IQs of 147, writers (140) and scientists (135) were very high, artists [however] were lower at 122, and soldiers were down to 115.' As for an average estimated IQ of Cox's geniuses, it was 165 – a finding which compares well with the results reported by Barron (1963: 242), whose creative writers had their IQ estimated at 140 or higher. Eminent scientists discussed in Roe (1951; 1952; 1972) also did well, their IQs between 121 and 194. Generally, however, in spite of 'a large volume of [...] studies' which 'confirmed that the exceptionally creative tend

concerned with 'specific intelligences', one typically wants to determine how they helped the individual in question become what she is.[73] A separate but related topic is the relation between intelligence and *adaptive skills*.[74]

Creative processes or such mental operations believed to play an important role in creativity as divergent thinking

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to show high intelligence scores and vice versa [...] there are many who are relatively high in one and low on the other' (*ibid*., p. 98) – results that had helped formulate the so-called 'threshold hypothesis', which holds that 'when a certain threshold is reached, say, IQ 120, further gains in intelligence do not bring about much further rise in creative abilities'. In short, even though there are still many theories of creativity in which intelligence is an important component and vice versa – many theories of intelligence try to accommodate for creativity somehow – intelligence is currently believed to be 'a necessary but not sufficient condition for creativity' (Haensly and Reynolds, 1989: 111).

[73] To illustrate, one may cite authors such as Kozbelt (2011: 124) who support their case by referring to eminent creators who, according to him, often display a high level of various *specific intelligences* in many different areas**.** The drawings of Michelangelo point at a high level of *visual intelligence*, whereas the fact that 'even in his seventies, he could carve marble with unmatched vision and precision' and 'allegedly memorized all of Dante's 14 000 plus-line Divine Comedy' at extremely high levels of *kinesthetic* and *verbal intelligence* modes.

[74] This issue has been explored by Estes (1985), who explains that the more intelligent one happens to be, the more likely he or she is to block his or her creative (i.e. less adaptive) responses to a particular setting in which he or she is functioning, but to which – as his or her intelligence tells him – he would better adapt if he wants to survive, both literally and metaphorically. Later scholarly contributions on creativity such as Sternberg *et al.* (2005) note that one is more likely to observe this mechanism in environments in which people's 'IQ-like (analytical) skills' (p. 355) are so highly rewarded for, that keeping their creative potential 'latent' simply pays more (Simonton, 1994; Sternberg, 1996). Finally, in Simonton (1979: 81), we find a claim that too much of a particular ingredient – in this case intelligence – may 'inhibit creative development by enforcing an over-commitment to traditional perspectives'.

– in short, all efforts which aim at shedding more light on what is going on in the creative person's mind – connect naturally with yet another distinct group of studies: research which tries to find evidence for the possible links between highly original or unusual thinking, commonly known as creativity, and abnormal mental states. The topic of the possible links between creativity and mental illness will be discussed in the section to follow.

2.2.2.3 Creativity as related to mental illness

In view of the fact that questions concerning a possible link between artistry and mental illness have 'been posed since antiquity' (Ludwig 1995: 1; Prentky, 1989: 243),[75] it

[75] Some of the oldest *attested* instances of our ever-lasting fascination with the possibility that creativity and mental illness may be related come from the Greeks who, at one point, distinguish between 'the madness brought on by natural causes, such as delirium or melancholia' and that form of madness that is 'supposedly produced by the gods' (Ludwig, 1995: 1). The latter included prophetic madness, enabling the knowledge of the future and induced by Apollo, ritual madness, which 'allowed emotional release and liberation from the self' (and was seen as the gift of Dionysus), erotic madness, which stimulated rapture and love and was precipitated by Aphrodite or Eros and, finally, poetic madness, responsible for the lyric expression and inspired by the Muse (*ibid.*). A good example of the latter is Plato's 'Phaedrus', in which artistic creation is described as rooted in a kind of inspired madness; another is Aristotle's 'Problemata': unlike Plato, however, Aristotle saw the creative act as a 'natural event, and, as such, conformed to natural law' (Rybakowski *et al.*, 2008: 37). The image of the 'tortured artist' also proved to be a popular one among subsequent generations, especially the Romantic artists (Sussman 2007: 21), its most extreme form being a belief that to be a serious artist, one simply needed to be – to use a word popularized by Byron – 'touched'. As regards the first *scientific* efforts to examine the relations between outstanding gifts and mental

is not surprising that 'the possibility of co-occurrence of outstanding creativity and *psychopathological changes* within a person' (Rybakowski *et al.* 2008: 37; emphasis added) has evolved into one of the most distinctive research strands in contemporary creativity research studies. *Abnormal mental states*, as these scholars argue, must, in this way or another, affect 'the unique manner in which they [i.e. creators] apprehend their world' (Prentky, 1989: 244), making them 'see things, experience things, or conclude things that the rest of us [including mentally healthy individuals] do not' (*ibid.*).

What are some of the most frequently investigated 'abnormal mental states'? The first of them is, without a doubt, *mood* or *affective disorders*.[76] The main goal

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disorders, the credit goes to an Italian psychiatrist, anthropologist and criminologist, Cesare Lombroso, yet another work which, like those referred to below suggest that genius, addictions and psychiatric defects tend to co-occur (Rybakowski *et al.*, 2008: 37). Finally, the topic of the possible link between mental illness and creative output also runs through so many works, including such well-known biographies as *The Passion for Life* – a biography of a Dutch painter, Vincent Van Gogh, about whom historians speculate that he, too, may have had schizophrenia. In fact, the image is so powerful that, as Sussman (2007: 21) continues, some artists actually 'mimic madness or eccentricity in order to be more respected for their creative work'.

[76] A comprehensive overview of other types of mental disorders discussed in connection with creativity can be found in Young, Winner and Cordes (2012). The list of studies which seek to provide evidence on this purported link between a co-occurrence of milder or more severe types of affective disorders and creativity includes, among others, Andreasen and Glick (1988), Coryell *et al.* (1989), Jamison (1989), Kyaga *et al.* (2011), Richards *et al.* (1988), Santosa *et al.* (2007), Simeonova *et al.* (2005), Srivastava *et al.* (2010) and Vellante *et al.* (2011), all concentrating on *bipolar disorder*. In turn, research on *unipolar depression* has been carried out by Andreasen (1987), Ludwig (1992; 1994) or Post (1994). Other frequently cited works

these studies' authors set before themselves is always to confirm or refute the hypothesis of the two, creativity and 'abnormal', mental states being somehow related. If differences exist, they mainly concern (a) who individual authors decide to concentrate on; (b) the methodology adopted and (c) the size of the populations studied. Some authors (e.g. Andreasen, 1987; Ludwig, 1994 and 1995; Post 1996) take on writers as their main object of study; others (e.g. Schildkraut, Hirshfeld and Murphy, 1994 or Post, 1994) concentrate on painters, scientists, politicians and artists. Some (e.g. Andreasen, 1987) conduct prospective observations spanning many years; others (e.g. Post, 1994) prefer post mortem analyses of biographies of eminent individuals. Finally, whereas some work from very large, others select relatively small samples. For instance, the 1995 study by Ludwig examined no less than 1004 individuals, whereas respective numbers for Andreasen (1987), Dale (1952), Ludwig (1994), Post (1996) and Schildkraut, Hirshfeld and Murphy (1994) were 30, 33, 59, 100 and 15.

The results that emerge from the aforementioned body of research are as follows: the levels of bipolar disorder among a group consisting of thirty creative writers studied by Andreasen's (1987) were higher than those attested among members of a control group consisting of individuals of similar intelligence levels (43% versus

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revolving around, among other disorders, *schizophrenia*, *schizotypy*, *ADHD* or *substance abuse* include, for instance, Burch *et al.* (2006), Cropley and Sikand (1973), Dykes and McGhie (1976), Karlsson (1970), Ludwig (1990), Myerson and Boyle (1941) or Nettle (2006). As for other works discussing the topic or some related issues, one may mention Andreasen (1980), Barron (1963), Becker (1978), Behrens (1975), Cattell and Butcher (1968), Durrenberger (1999), Eisenstadt (1978), Eysenck (1994), Ludwig (1989), Wills (2003) or Ziegler and Farber (1985).

10%). Writers also had significantly higher prevalence rates than controls for mood (affective) disorders (80% versus 30%). Similar tendencies had been observed in two earlier studies, namely Andreasen and Canter (1974) and Andreasen and Powers (1975). Regarding two other frequently quoted studies on whether creativity and mental illness are related (Ludwig, 1994, 1995), the first of them showed that (59) female writers, matched with the same number of controls, had higher rates of *alcoholism* (20% vs. 5%), *depression* (59% vs. 9%), *drug abuse* (17% vs. 5%), *eating disorders* (12% vs. apparently none), *generalized anxiety* (14% vs. 5%) and *panic disorder* (22% vs. 2%), which makes authors such as Pritzker (2011: 526) assume that female writers may be 'even more at risk' than male writers are. In turn, the 1995 study by Ludwig showed a strikingly high incidence of mental disorder among the 53 poets, 180 fiction and 64 non-fiction writers (87, 77 and 72 per cent, respectively). The incidence for representatives of other creative professions was equally high.[77]

Similar results have been obtained by Coryell *et al.* (1989) or, to mention more frequently cited examples, Jamison (1989), whose interviews of 47 British prize-winning writers brought about a discovery that 38% of the entire sample has received treatment for affective illness, 23.4% took antidepressants and 6.4% (all poets) had been diagnosed as manic-depressive. The tendency has been

[77] As already mentioned above, the 1995 study targeted an impressive number of over one thousand eminent individuals; to qualify as 'eminent', a subject not only had to have a biography written about him/her; the biography also had to be discussed in *The New York Times Book Review*. The time span considered was 30 years – Ludwig researched all those who had their biographies reviewed between 1960 and 1990.

confirmed by two large scale studies by Kaufmann (2000-2001), the first discussing 986 twentieth century writers and the second one at 889 writers who lived from 1600 to 2000.[78] One of the more recent studies which targeted 300,000 Swedish individuals with mental illness (Kyaga *et al*. 2011) also revealed that those suffering from bipolar disorder were more likely to have an artistic occupation than members of non-disordered control group.

Similarly, the aforementioned analysis of biographies of renowned scientists, politicians and artists carried out by Post showed the presence of alcohol addiction in 28% of writers and 29% of artists and depression in 72% of writers. In a smaller-scale study – the 1994 sample consisted of 291 individuals – Post's examination of 100 British and American writers, 82% were proved to have suffered from affective disorders, and 40% of alcohol abuse and addiction.

Another interesting finding produced was that both creativity and mental illness often run in the family – at least, this is the conclusion resulting from the 1987 study by Andreasen, which shows that first degree relatives of writers not only have prominent achievements in areas requiring creativity, but also a relatively high rate of psychopathology, especially depression. Well-known cases such as Emily Dickinson, who wrote a significantly larger number of poems in the spring and summer periods,[79]

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[78] Kaufman's primary interest was in how genius-level (i.e. truly eminent) writers compare to merely accomplished writers; to address the question, he concentrated on those who won the Nobel Prize and Pulitzer Prize.

[79] As results from an analysis of the contents of letters in which Dickinson described her emotional states (McDermott, 2001), it is highly likely that she was suffering from bipolar mood swings. A similar correlation (a majority of work being produced in hypomanic states) was found in the

T. S. Elliot, one of the many artists who were formally institutionalized at some point in their careers or Virginia Woolf, who ended her own life because of mental illness, not only help uphold a popular conviction concerning the purported association between various psychological disorders and creativity but, more importantly, suggest, in much the same way as the studies cited above, that 'mere chance isn't responsible, that a scientific explanation for the link must exist' (Sussman, 2007: 21).

However, as noted by, for instance, Waddell (1998), not all research exploring the purported relationship between creativity and mental illness succeeded in proving it actually exists. To support her case, Waddell refers to fourteen early analyses of the issue conducted between 1925 and 1979 which, though 'often cited later as demonstrating high rates of mental disorders in creative or gifted people' (p. 3), do not support this link. A good example of such a study would be Terman *et al.* (1925), a work monitoring 1000 intellectually gifted children over a 30-year period, which showed that they actually had lower rates of mental illness than the general population. Another work which fails to support the link is a study of 1020 eminent British people surveyed by Ellis (Ellis 1926), ending with the conclusion that they had rates of depression, bipolar disorder and schizophrenia similar to the general population. Similar findings were obtained by Nicolson (1947), Juda (1949), Drevdahl and Cattell (1958), Torrance 1965, Noreik and Odegard (1966) or Lucas and Stringer (1972). What also speaks against recognizing many of those studies as reliable is that, as

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analysis of Robert Schumann's creativity (Rybakowski *et al.*, 2008: 38), from which it follows that creative expression may be a positive means of coping with strong and conflicting emotions typical of many mental illnesses (Conti and Amabile, 2011: 147).

Waddell (1998:3) points out, 'none used standardized or reproducible definitions of mental illness or creativity [...] and most did not use comparison groups'. And then there is this 'disquieting' fact that creativity, including genius-level creativity, has often been observed in individuals who never displayed any signs of mental illness. But, to cite some counter-evidence, when one considers that out of the thirteen correlation studies devoted to the issue as discussed in a 2004 meta-survey by Lauronen *et al.*, only one of them does not support the idea of some sort of a connection between the two phenomena, one must conclude that the day on which the legend of the 'mad scientist' will be verified with scientific evidence is drawing near.

Were it to turn the other way round, i.e. had the body of research concerning the possible relation between drawing unusual connections or thinking in a highly original, unusual way, commonly referred to as creativity and certain mental diseases proved unable to do so, one should still remember that interest in creativity as related to mental illness has resulted in some important evidence concerning the possible range of neurological similarities between mental conditions such as manic depression and the creative mind. In the aftermath of such research efforts, unusual activity in the frontal lobe of the brain (i.e. a part where knowledge and concepts are stored) was established as typical for both manic depressive and schizophrenic patients on the one hand and creative thinking (Heilman *et al.*, 2003; Flaherty, 2005) on the other.[80] Relatedly, frontal lobe *deficits* have been found to have a detrimental effect on 'idea generation,

[80] Hyperactivity in the frontal lobe may cause a person to draw unusual connections between two or more seemingly unrelated items or ideas – a process which, according to researchers such as Boden (2004) lies at the heart of one creativity type, the so-called combinational creativity.

in part because of rigid judgments about an idea's worth' (Flaherty, 2005:147). Moreover, both mental illness and creativity has been found to result from atypical levels of the same neurotransmitters such as dopamine, responsible for both schizophrenic symptoms and features such as novelty seeking and the creative drive (Flaherty, 2005).

To sum up, though still insufficient to conclusively verify or disprove the hypotheses of the tortured artist or the mad scientist, renewed interest in this topic observable during the last two decades means that the scientific evidence that will make this possible is mounting and that new research topics will appear regularly. One of these is a possible *causal* relationship between creativity and mental illness, i.e. whether creativity may cause more or less serious psychological disturbance. At the root of this interest, there seems to lay this all too human conviction that, to paraphrase the title of one of the leading contributions in this research strand, greatness can only be had at a certain price.

2.2.2.4 Press as related to creative performance

The term 'press' that, as mentioned before, was popularized[81] by Rhodes' study (Rhodes, 1961), refers to the environment and social settings in which creative acts take place. As follows from the contents of the section on the early predictors of creative eminence, at least two types of press factors have been investigated: those connected with (1) family (and hence the type of upbringing one has

[81] I say 'popularized' since, as pointed out by Runco (2004: 661), the 'concept of "press" was proposed by Harry Murray (1938), who used it to refer to, as Runco continues to explain, 'pressures (hence "press") that influence creative people or the creative process'.

received) and those that link with (2) schooling. However, as one can infer on the basis of more recent contributions on the topic such as Runco and Pagnani (2011: 67; emphasis added), this two-item list can be expanded with the addition of a further four: research into (3) '*physical surroundings*', (4) '*workplace environments*', (5) the '*cultural traditions*' and, finally, (6) 'the *historical milieu* in which we happen to have been born.'

As concerns specific research topics pursued within the first of them, studies (e.g. McCoy and Evans, 2002) on the relation between the physical environment and creativity, they may range from the *lightening* in the room in which one creates, through a *place's layout*, to the *characteristics of the region/country* in which one is living. As for the overriding aim furthered, most wanted to isolate factors that may contribute towards our perception of 'some physical spaces as being more creatively conducive than others' (Runco and Pagnani, 2011: 67). And, as showed in many of them, the elements specified above do seem to matter,[82] a pattern which has been immortalized in countless works of fiction and biographies of eminent creators.

As regards research on workplace environments, the next subdivision distinguished by Runco and Pagnani, quite a significant number of studies in this category concerned themselves with how the '*institutional workplace atmosphere*' may influence creativity (Runco and Pagnani, 2011: 68; emphasis added).[83] Sources

[82] To illustrate, Runco and Pagnani (2011: 67) refer to a study by Vithayathwornwong, Danko and Tolbert (2003), who found that 'the most creative organizations were those whose layouts promoted both a sense of dynamism and freedom among the employees.'

[83] To exemplify, the reader is referred to a review by Williams and Yang (1999) as a relatively comprehensive source on work carried out in

other than Runco and Pagnani point at other issues that had been examined, for instance *the characteristics of the group one belongs to* (Staw, 1984; Steiner, 1965; Woodman, 1983). The influence other group members exert on an individual's creative behavior has been next classified as 'informational social influence' and 'normative social influence' (Sheldon, 2011: 241)[84] and many findings obtained confirmed the results of 'Asch's classic studies in the 1950s' (*ibid.*), in which subjects who worked within larger groups often ignored the clear evidence of their own senses, and uttered judgments that conformed with what others said.

As regards studies conducted with a view to establishing the *relation between creativity and culture*, readers relying on Runco and Pagnani's (2011: 68) account would learn that the 'effects of culture upon creativity vary in response to three variables'. The first of them is what they term 'the level of resources available'; the second 'the degree of modernization found in the culture'; the

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this vein. Both this one as well as studies not mentioned by Runco and Pagnani stress that creativity is seriously hampered in environments in which the expectation of *evaluation* is strong or when one produces expecting some *extrinsic rewards*. In turn, 'a high level of worker responsibility for initiating new activities, a low level of interference from administrative superiors, and a high stability of employment' (Amabile, 1983b: 184) contribute to a creative climate and thus foster creativity – findings confirmed by, among others, Ekvall and Tangeberg-Andersson (1986) and in line with Rhodes' (1961: 306) observation that 'environment factors at all times in life form a psychological press that may be either constructive or destructive to creativity'.

[84] 'Informational social influence' is influence observable every time when individuals alter their behaviour to accord with new knowledge obtained from others, e.g. members of the same art workshop. 'Normative social influence', on the other hand, leads individuals to alter their behaviour to accord with the conventional beliefs or practices of others (Sheldon, 2011: 241).

last one the 'specific zeitgeist of that moment of time.' Those potentially interested in *how the resources one has at his or her disposal relate to creativity* are next referred to Dhillon and Mehra (1987), who focus on the creative production of females coming from wealthy as opposed to impoverished sectors of the Indian society. Readers interested in the second topic specified are, in turn, advised to reach for Mar'i and Karayanni (1983), who have demonstrated how gender equality, which correlates with *modernization*, has subsequently affected the level of creative production of females from Arab countries. Other, even more distant cultural milieus are also referred to; for instance, readers interested in how the standards expected of a creative performance may change depending on whether the creator is a male or a female are referred to Lubart (1999) who demonstrated this by investigating members of the Kaluli tribe of Papua New Guinea. Finally, to provide the reader with an example of work which demonstrates *how the specific zeitgeist of a particular moment in time affects creativity*, a study by Simonton (1992) is cited. A brief commentary concerning the study's aim, which, according to Runco and Pagnani (2011: 68) consisted in exploring the 'cultural and religious changes over 1,400 years of Japanese history' is provided; as for the main results obtained, the same source says that it managed to demonstrate how 'creative production of Japanese females over the centuries' correlates with 'cycles of power and influence between rigid Confucian gender ideals and comparatively permissive Buddhist philosophies.' More eminent creators are, of course, also discussed.[85]

[85] To illustrate, consider, for instance Kozbelt's (2011: 121) discussion of the atmosphere in which Michaelangelo started his career. As he argues, the progress consisting in finding the solution (or partial solution) of

Another distinct research strand in the press category consists in all work in which the authors stress that a creative act is typically performed in situations where there is no prior correct solution or answer to a problem.[86]

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various depictive problems that plagued artists at the times when Buonarotti was still in apprenticeship, would not be possible had it not been for 'many factors: a rediscovery of ancient knowledge, an influx of wealth from Florence's commercial hegemony, strong civic pride that deliberately sought to create lasting monuments of greatness, the emergence of humanism, and, more pragmatically, the development of a strong craft tradition in the arts.' As Kozbelt continues to argue, without this tradition, 'artistic knowledge' would not have been actively sought and promulgated through an apprenticeship system, in an effort to surpass the achievements of earlier generations. Much the same holds for Bathurst's article on Haydn in the same volume. As he (Bathurst, 2011: 528) argues, Haydn created his works during a period of scientific and political change and revolution. The industrial revolution and the changes to the civic landscape that came in its wake, along with the advances in scientific enquiry that accompanied the Enlightenment formed the backdrop of Haydn's world'. As for the events that undermined 'the theological and scientific certainties of the 18th century', one of those Bathurst lists is the Lisbon earthquake, which gave rise to questions of God's immanence and the ability to protect the innocent; another event, Captain Cook's travels, which shook the certainties that the scientific community had claimed concerning the nature of the globe. These uncertainties spread to the political arena, destabilizing traditional political arrangements and resulting in the rise of democratic governments in the Western Hemisphere as for the work of Haydn, 'the shift in power from leaders born to their position to democratically elected officials found expression in his Sturm und Drang works composed between 1767-1773 – compositions that gave rise to emotional expressions that burst through the strictures of Enlightenment rationality'. Thus, as Bathurst (2011: 528) concludes, the fact that one lives and creates in isolation, as Haydn did, does not mean that they 'write in a social or political vacuum'.

[86] To see how important the term 'problem' is in creativity research, note that the editors of the second edition of the *Encyclopedia of Creativity* (2011) have it printed in the second biggest font size, the same as that used for the term 'process'. The tagcloud both are part

These, as they are referred to by, among others, Baas, De Dreu and Nijstadt (2008: 779; my emphasis), immediate '*situational predictors of creativity*' may either consist in a realization on our part 'that a particular idea does not work' (Paulus 2002: 395) or some kind of 'external threat' (Paulus 2002: 365) – for instance 'the threat of being a small player in a competitive situation' (*ibid*., p.366).[87] Other threats (or facilitators) one finds discussed in the vast literature in this category and which subsequently resulted in creative performance across a broad range of settings include being dissatisfied with one's job (Zhou and George, 2001) or 'job insecurity' (Probst, Stewart, Gruys and Tierney, 2007).[88]

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of and placed on one of the opening pages of the book is a graphic representation of the topics investigated by generic creativity scholars, with heavily researched topics written in largest letters. The problems that will eventually inspire creativity may also be described in terms of their seriousness. To illustrate, one may contrast the seriousness of 'climate change, limited resources, religious and territorial conflicts, poverty, and energy' (Runco and Pritzker, 2011: xxi) with relatively trivial problems that one needs solved on, in the words of Ward (2011: 254), 'a day-to-day basis'.

[87] This framing of creativity as a response to a problem or threat of some sort is basically consistent with what we find in many linguistic studies (e.g. Dupel, 2010: 152), whose authors explain the unusually high number of lexical innovations used by their subjects relative to a steadily growing competition on the Polish mass media market. The same can be posited for media studies (e.g. Godzic, 2004: 66), in which using the language in a non-standard way is inextricably linked to the desire on the part of those concerned to attract the viewers' attention to *their* product.

[88] As these studies demonstrate, both may be experienced later on in life and not necessarily during one's formative years. Furthermore, both may be followed by periods of relative stability, a pattern described in the aforementioned article by Bathurst (2011), in which we see Haydn live comfortably off the income derived from manuscript subscriptions when the music publishing business began to thrive: a good example

In addition to presenting *creativity as* a response to a problem of some sort and, thus, essentially *a problem solving activity*, many studies prefer to discuss it related to the tasks one is required to perform.[89] Critical surveys of various tasks that led to a generation of creative ideas (e.g. Mikulincer, Kedem and Paz, 1990) point at a diversity which is comparable to that observed when the term 'problem' is used, whereas studies such as Akinola and Mendes (2007) suggest that the word 'challenge' is also used sometimes.

Finally, a considerable number of topics pursued in relation to creativity as affected by various press factors can be retrieved from works that have the term *Zeitgeist* in their titles. In some of them, the main focus falls on what Simonton (2011: 533) called an 'external Zeitgeist' – a category encompassing political events and economic circumstances such as those we observed in the context of Bathurst's (2011) discussion of the times in which Haydn created. Another example Simonton (2011: 533) gives for the category of '[c]onditions that are extrinsic to a particular domain of creativity' is 'sociocultural conditions', observable, for instance, when a certain group of individuals (e.g. female mathematicians or female architects) is given less support within a specific culture than if they chose another creative career (e.g. chose to

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demonstrating that such 'situational stress' – a yet another term often used in creativity studies – need not be permanent.

[89] The work in the first group is represented by Estrada, Isen and Young (1994), Greene and Noice (1988), Isen, Daubman and Nowicki (1987), Kaufmann and Vosburg (1997), Mumford (2001) and Nemeth and Wachtler (1983), studies in which creativity is seen as a response to a task include Bartolic, Basso, Scheff, Glauser and Titanic Scheff (1999), Hirt, Melton, McDonald and Horackiewicz (1996), Lamm and Trommsdorf (1973) and Madjar and Oldham (2002), to name a few.

be female opera singers or ballerinas). In turn, 'internal Zeitgeist' is defined as '[c]onditions that are intrinsic to a particular domain of creativity'. Above, a couple of such *domain-intrinsic conditions* were also pointed out; as for examples given by Simonton, they include 'research paradigms in the sciences and stylistic conventions in the arts.' Finally, the term 'Zeitgeist', 'is often used to encompass the Ortgeist';[90] an 'inclusion [which] occurs because the Zeitgeist applies to a specific place as well as time.'

A few specific examples provided by Simonton (2011: 537) give one a good idea of findings made by those interested in this specific research topic. One of them concerns an observation that 'melodies become more unpredictable and variable when a composition is created under wartime circumstances – particularly if the composer is active near the war zone.' As he continues, '[t]here is even an Ortgeist effect. Provincial composers who were born and raised far from the music centers of their day tend to create less strikingly original themes relative to cosmopolitan composers who emerged from one of the centers of music activity.' As concerns the relation between the *external Zeitgeist* and the quantity of creativity, Simonton (2011: 536) claims that 'civilizations tend to become more creative a generation or two after they have been exposed to influences from alien civilizations or cultures. In a nutshell, the aggregate level of creativity is prone to increase after an influx of sociocultural and linguistic heterogeneity.' Finally, we have some empirical research that shows that 'external conditions [also] affect qualitative features of creative products' (*ibid.*).

[90] The '"spirit of the place"', defined as (Simonton, 2011: 533) as 'all political, economic, sociocultural, and disciplinary conditions characteristic of a given locale, such as a university, city, or nation.'

In spite of such important findings, the concept of the Zeitgeist has also been used 'to minimize the importance of the creative individual' (Simonton, 2011: 537). This view, as he continues, 'is especially commonplace in many discussions of multiples. If both Newton and Leibnitz came up with the calculus, then the calculus must have been "in the air" just ripe for the picking.' However, as Simonton argues next, there is no evidence confirming this is indeed the case and many 'individuals [...] born in the same place and time [...] exhibit greatly differing degrees of creativity.'

Finally, as argued by Simonton (2011: 534), 'the Zeitgeist is often associated with eponyms – names of persons that became labels for eras or periods in history'. As these are typically individuals who achieved a certain level of eminence, this last remark naturally connects with the last analytical section of Chapter Two – one in which we shall take a brief look at the attributive expressions typically seen in the company of the noun 'creativity', as well as the functions they may perform.

2.2.2.5 Creativity in terms of distinct types

Many studies reported above concerned themselves with eminent creators. However, creative individuals and the products of their creativity can also be classified relative to other principles and not solely in terms of, as Kozbelt (2011: 474) calls it, the 'level of creative magnitude'. The aim of this last analytical section of Chapter Two is to recreate the topics pursued in connection with what my informants remembered as the last broad research area they had encountered while 'over there': *research into various creativity types*.

Starting with 'eminent creativity' – a term that, as argued by Kaufman and Beghetto (2009: 1), is 'reserved for the great' – this research seems to have concentrated in, firstly, characterizing what such individuals or the products of their creativity are like. The resulting descriptions all point at those individuals as either being 'well-known' or to having 'received widespread public acclaim for their contribution to society' (Runco and Richards, 1997: 3); when the focus is more on their attributes than the reaction to their work, they may be characterized as individuals who have 'developed a rich and detailed, domain-specific knowledge base' (Runco and Richards, 1997: 3) or who 'have mastered a field or fields at very high levels' (Cohen, 2011: 9). The product of their labour is, in turn, characterized as 'innovative and original work that transforms a domain' (Feldman and Morelock, 2011: 261) or that has the capacity of altering 'the universe of meaning itself' (Ghiselin, 1963: 42), that is radically change the way in which we view the world around us. At the highest level, a level at which we are dealing with the so-called *'historical' creativity*, or 'H-creativity', for short, we will be coming across ideas or products which are not only of outstanding value, but which – '(as far as we know) no one else has ever had [...] before' (i.e. ones that appeared 'for the first time in human history') (Boden, 2004: 2; my emphasis): products that are fundamentally novel with respect to the whole of human history.

The remaining terms used to refer to individuals and/or products that have attained this highest level of creative eminence include *Big-C*, *Capital C*, *extreme* or *mature* creativity, the last one coined in order to indicate that the type of mastery needed to produce work of that

quality is normally associated with adulthood. Older or domain-specific terms include *primary creativity* (Ghiselin, 1963: 42).

Below that level, one encounters what Feldman and Morelock (2011: 261; my emphasis) call '*moderate creativity*' – work that is still innovative and original, but that does not achieve the highest level of impact. The term that Ghiselin uses with reference to work at lower levels of creative eminence is *secondary creativity*; by contrast with his 'primary creativity', which requires the 'production of insight' only few are capable of, this level involves the 'reproduction or copying of insight in any degree whatever' (p. 38) and results in extending some previously known concept into new areas of application. As for Boden's scheme, her 'historical' creativity is contrasted with *personal creativity* ('P-creativity', for short), a term coined to denote all these cases when the idea in question is 'new *to the person who comes up with it*', but not necessarily to those around him (Boden, 2004: 2).[91]

The work of Boden is, by no means, the only one in which one forwards the opinion that everyone is creative to a degree and that, in spite of the fact that, 'although some of us display it more often, and more convincingly,

[91] To illustrate, Boden (2004: 2) gives an example of 'a twelve-year old girl who had never read Macbeth', and yet, at one point, compares 'the healing power of sleep with someone knitting up a raveled sleeve.' As Boden argues, '[w]ould you refuse to say she was creative just because the Bard had said it first?' Answering that rhetorical question for the reader, she says that we might, indeed, be inclined to do this, but only if we had 'been talking around the topic with her' or prompted her in some other manner. 'Otherwise', however, as she concludes, 'you'd have to acknowledge her remark as a truly imaginative one.' In other words, while classifying a product or an idea as P-creative, we are doing this with respect to the individual who had this idea or who had invented or created the product.

than others', it is, in fact, 'an aspect of *normal* human intelligence' (Boden, 2007: 1). That such ideas are not uncommon, can be inferred on the basis of Kaufman and Beghetto (2009: 1; my emphasis), who refer to this line of reasoning as '[t]he other predominant thrust of work in the field [which, these days] looks more at *everyday creativity* (Richards, 1990), such as those creative activities in which the average person may participate each day'. To illustrate what is involved in this form of creativity, examples ranging from 'creatively arranging family photos in a scrapbook' to 'coming up with a creative solution to a complex scheduling problem at work' are given (*ibid.*).

Following the name reference provided in the previous citation, the reader will be able to locate other work (e.g. Richards, 1993; Richards, 2007; Richards, Kinney, Benet and Merzel, 1988) discussing this creativity type as well as learn other expressions used interchangeably with 'everyday' creativity. To illustrate, one may list such expressions as *common creativity*, *mundane creativity* and *creativity in the small*, as well as *little-c creativity*, the last one also retrievable from Kaufman and Beghetto (2009: 1).

Though, at first sight, the term 'little-c creativity' resembles yet another one in frequent use, *mini-c creativity*, the last item on the previous list, in fact, has been designed to talk about, as Kaufman and Beghetto (2009: 1) continue to explain, 'the *novel and personally meaningful interpretation of experiences, actions, and events*'. This is the definition of 'mini-c' creativity interested readers will find in 'Beghetto & Kaufman, 2007'; as for the article we are citing from, it explains that this category had been proposed because of the realization

that research on little-c creativity tends to overlook 'the creative insights experienced by students as they learn a new concept or make a new metaphor'. Thus, the concept can be said to 'encompass the creativity inherent in the learning process', and is 'also similar to Niu and Sternberg's (2006) notion of "individual creativity," as well as developmental conceptions of creativity (Beghetto & Plucker, 2006; Cohen, 1989; Sawyer *et al.*, 2003; Vygotsky, 1967/2004)'. Finally, to account for 'the developmental and effortful progression beyond little-c', an additional category, *Pro-c* has been invented.

As Kaufman and Beghetto (2009: 5) explain, '[a]nyone who attains professional-level expertise in any creative area', but who 'has not yet attained Big-C status [...] is likely to have attained Pro-c status.' To exemplify, the two mention 'many "amateur" artists [who] are being creative at the Pro-c level, even if it is not their primary means of support.' The isolation of this category is, as they (Kaufman and Beghetto, 2009: 5) continue to argue, 'consistent with the expertise acquisition approach of creativity (Ericsson, 1996; Ericsson, Roring, & Nandagopal, 2007)' – an approach which suggests 'that prominent creators require 10 years of preparation in a domain of expertise to reach world-class expert-level status.' Other studies which also justify the addition of the Pro-c category include Bloom (1985), Gardner (1993), Hayes (1989) and Kaufman and Kaufman (2007), all pointing at a decade or more 'of intense preparation [...] necessary to become an international performer in a broader range of domains including chess, sports, and the arts and sciences.'

The second large, distinct category of attributive expressions to be seen with the noun *creativity* consists of those which point at the field in which creativity

materializes. When only broad distinctions are carried out, the noun 'creativity' will be appended with expressions such as 'artistic' or 'scientific'.[92] When individual authors want to stress the existence of more subtle subdivisions within the first of these two broad domains (*artistic creativity*), they may, as Vernon (1989: 94; emphasis added) does, talk of '*literary*, *philosophical*, *musical*, *visual* or *decorative artistic*, and *sculptural creativity*',[93] in much the same manner as Michael and Wright (1989: 47; emphasis mine), who refer to '*creativity in the performing arts*, such as acting, singing, conducting, and playing a musical instrument'. As regards specific subdivisions within *scientific creativity*, one may cite Tuli's (1985) reference to *mathematical creativity* as an example of a group of expressions which perform this function.[94] Finally, to account for the fact that activities such as architecture seem 'to partake of both types' (Vernon, 1989: 94), one could, theoretically, postulate the coinage of a compound 'artistic-scientific' to be placed before *creativity*, but the literature analyzed contains no evidence that such an expression is actually in use.

Domains in which creative ideas are typically expressed can also be easily inferred from the work of Gardner

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[92] Sometimes one of those is appended with additional qualifying expression, a good case in point being 'children's *artistic* creativity' (my emphasis), retrieved from the title of Amabile and Gitomer's (1984) study.

[93] A good example illustrating the use of one of those is, for instance, Kozbelt's (2007) study.

[94] As regards work in which a reference is being made to certain subdivisions within *both* creativity types – artistic and scientific – one may cite Hocevar (1976), a study in which identifying creative talents is based on a distinction between creativity in the fine arts, music, literature, math-science, the performing arts.

(1993), in which they assume the form of 'intelligences' creative individuals are claimed to possess. To exemplify, consider just the best known among Gardner's cases, including T.S. Elliot and his *verbal-linguistic intelligence*, Stravinsky (*musical intelligence*), Einstein (*logic-mathematical intelligence*), Freud (*intrapersonal intelligence*), Picasso (*visual-spatial intelligence*) and, finally, Gandhi, representing a 'type of creativity [which] might be termed *social* or *spiritual*' (Vernon, 1989: 94; emphasis mine) – terms, which relatively easily translate into the domain to which those individuals have made a significant, highly creative contribution. Another way of indicating a specific domain may consist in preceding creativity with a noun denoting a particular profession, in the way Haensly and Reynolds (1989) do when talking of 'the *architects'* creativity' (p. 126; emphasis mine).

The third, partly related category of attributes attached to the noun *creativity* consists of those which refer to certain activities and/or situations and environments where creativity may be observed. As an example of the first sub-category, consider, for instance, *creativity within formal written assessments* or *creativity in blockbuilding*. Both activities allow the formation of hypotheses concerning specific environments in which they can typically be observed – environments which can also be referred to in an explicit manner, as when one comes across such phrases as *creativity at school*, *classroom creativity*, or *creativity in counselling*. As an example of an expression which refers to *creativity in a non-institutionalized setting*, consider the phrase *creativity in families* – yet another environment which, as mentioned above, is believed to either facilitate creativity or be detrimental to creative performance. Finally, the

situations and/or environment in which creativity can be observed can also be subdivided on the basis of whether 'the activity was financially compensated.' In such cases, the terms *vocational* or *avocational* will be used, a good example being the work by Richards *et al.* (1997), the source of both as well as the fragment just cited (p. 129). The same source also introduces a yet another term, *real-life* creativity, likely to refer to creative behaviour observed on such occasions rather than in laboratory conditions.

The fourth category of attributive expressions the noun *creativity* is accompanied by consists of those which point at the age of the creator. One may, thus, talk of *adult creativity*, to be distinguished from *children's creativity* or that type of creativity that is displayed by adolescents. As regards work which attests the use of such expressions while simultaneously illustrating interest in these latter two creativity types one may mention Richardson, 1986 (adolescents) and (in the second category) Getzels and Jackson (1962) or Janos and Robinson (1985). Various descriptors referring to old age also belong here, a good example being Hogg (1993), in which we see the noun 'creativity' appended with 'in later years'.

Not infrequently, such fairly vague age descriptors as, for instance, 'adults' are further qualified. In consequence, expressions such as '*young* adults', '*older* adults', '*young* adolescents', '*young* children' or '*preschool* children' can be found, as illustrated by, for instance, Buck, Kardeman and Goldstein (1985), Goetz (1882; 1989), Gott (1992; 1993), Harrington, Block and Block (1987) or Juan (1985).

As before, many studies from which such qualifying expressions can be extracted indicate various possible subdivisions within a specific age group. To illustrate, consider the work of Klein (1975), who concentrates on

the 'creativity of children with different levels of anxiety'. In many cases, too (e.g. Daniels, Heath and Enns, 1985, Gibson and Light, 1967 or Heist, 1968), the subjects' age must be inferred from such qualifiers as 'university' or 'college', although here the correlation between age and being a member of these last two groups is, of course, less straightforward than in the case of groups consisting of, say, preschoolers. Finally, since the category of age is closely related to the passage of time, one may also come across attributive expressions referring to the period during which creativity can be observed (e.g. *lifetime creativity*), used in the aforementioned Richards *et al.* (1997).

Since creativity can also have negative consequences, many authors (e.g. Cropley, 2011b; Cropley, Kaufman and Cropley, 2008; Harris, Reiter-Palmon and Kaufman, 2013; Lee and Dow, 2011) take cognizance of this by putting the term 'malevolent' before the noun in question. In the words of Gill, Horgan, Hunter and Cushenbery (2013:130), what is actually meant by the concept of *malevolent creativity* is both 'a creative effort deemed necessary and right by some organizations or individual working to fulfil self-interested goals' as well as 'intended negative consequences for some other group.'[95] Put another way, it is this type of creativity which is always 'conducted with the conscious intention to benefit the self or organization and an awareness of its negative consequences' (*ibid.*) on other people. As further noted by Gill, Horgan, Hunter and Cushenbery (2013: 130), the

[95] Other views concerning 'malevolent' creativity hold that it occurs every time we witness someone design novel and useful products with the intent to harm not only others, but, not infrequently, oneself, either mentally or physically.

definition of malevolent creativity formulated in this way should help one distinguish between this creativity type and 'creative efforts that somewhat unintentionally lead to harmful outcomes, such as the invention of the automobile which had other unintentional negative consequences for the environment.' According to them, the most salient example of contemporary malevolent creativity is innovations introduced by terrorist organizations, to which we add racial slurs as, perhaps, one of its most obvious linguistic manifestations, since they are obviously created with the intent to harm.

The next category of attributes put before *creativity* is all those pointing at what Maher (2012: 67) subsumes under a somewhat misleading 'who is being creative'. When one has grounds to assume that creativity 'can be ascribed to a computational agent', one will refer to it as *computational creativity*. To emphasize the contrast between this last concept and what has, until recently, been the traditional focus of creativity research, the term 'human' will be employed. Finally, to account for the fact that the source of creativity can be both individuals and collectives of people, terms such as *group creativity* or *collective creativity* may be employed, whereas a recognition of the possible interactions between the two agents specified may lead to the coinage of such terms as 'collective human-computer creativity' (*ibid.*, p. 68).

Finally, one notes that whereas some of the attributes seen in the company of the noun in question will be evoked relatively frequently, others seem to belong to a special class of occasionalism – expressions which only apply to one particular situation only. A good case in point of this kind of expression is *practical creativity*, which Carey and Flower (1989: 302) define as 'the

variety of creative responses that all sorts of writers bring to many kinds of writing problems, in school and in professional work', to be distinguished from that kind of creativity that we associate with 'the "genius" class of writers produce traditionally acknowledged (i.e. literary) works' (*ibid*., p. 283). However, it is hard to say at this point what the future of some of these terms will be, e.g. whether the term 'practical' or, say, 'functional' will remain occasional constructions, coined or used to account for the phenomenon's countless aspects, or perhaps will start being used with reference to other areas of human endeavour requiring one to respond creatively 'to sustain what others see as quality work' (*ibid*.) and not exclusively writing or other narrower or broader domains in the context to which they have originally been put to use.

2.3 Discussion of the results

Scholars working within a given field constantly evaluate the work carried out by their colleagues in terms of the research methodology employed or the extent to which it is likely to bring further progress within the field in question. The interviews conducted with two individuals who at one point decided to 'venture beyond' suggested that what outsiders may be interested in the most at the initial stages of their studies is the extent to which the work carried out 'over there' is relevant for what one will be doing within his or her discipline of origin. However, as both of my informants admitted during these interviews, all the time they were reviewing the works by generics, they could not rid themselves of a strong feeling that what preoccupied

the minds of these scholars had little relevance for what students of creativity in language are into.

Since both of my informants were not able to recreate precisely the topics pursued by generics – all they could remember almost a year after they had been processing the materials they found was names of a few distinct research areas that I next used to give this chapter its present structure – I decided to read these materials myself. The summary of what I found 'over there' was subsequently presented to them, alongside a request to confirm its accuracy. When this confirmation was received, I decided to act on their initial suggestion and to compare this list with the contents of the index found at the back of Pope, Swann and Carter (2011) – a state-of- the-art publication on creativity in language and literature.

The results of this 'topicality test' were as follows: out of the 60 topics isolated in section 2.2.1.1 – a summary of research which tries to collect and describe factors that predict creative eminence later in life – none was located in the index. In other words, scholars who represent the research area in question, i.e. research into creativity in language, seemed not to be a bit interested in exploring the creative behaviour of their subjects and how it may have been affected by the absent father, alcohol abuse by parents/caretakers, the amount of formal education they had, androgyny, their attitude towards school, the authoritative parenting they had been exposed to, the amount of autonomy they had at home, the fact that they were born prematurely or after the death of their parents. The index also contained no indication of their interest in exploring the relation between creativity and being orphaned, creativity and the physical/mental abuse their subjects may have experienced and/or whether this

creativity and perhaps the type of creative expressions resorted to is not connected somehow with one's interests as a child.[96]

More or less the same was established in connection with other topics isolated in the course of sections devoted to adult creativity. The index under examination contained no entries pointing at abnormal mental states, mental illness, schizophrenia, bipolar disorder, unipolar disorder, madness (and related issues) being investigated in connection with linguistic creativity, and no interest, whatsoever, in topics we isolated while surveying research on personality and motivational factors. Finally, out of all topics isolated within research into creative processes, only four have made it into the index[97] and had it not been for

[96] In order to cast my net as wide as possible, I was conducting this search using expressions which these authors used as synonymous (e.g. cross-sexual interests and androgyny). The remaining topics looked up in Pope and Swann were *divorce, early predictors of creative eminence*, *birth order*, *characteristics of creative individuals as children*, *conditions at home*, *dislike for formal education*, *family background*, *family environment*, *family factors*, *family size*, *family's socio-economic status*, *family support*, *family trauma*, *firstborn children*, *formal education*, *genetic factors*, *gifted children*, *handedness*, *independence at home*, *interests of gifted children*, *laterborns*, *leisure activities of gifted children*, *the myth of an unappreciated young genius*, *the nature-nurture issue*, *parental attitudes*, *parental suicide*, *parenting styles*, *participation in extracurricular activities*, *pathological problems*, *personality/mental traits of gifted children*, *place of origin poverty*, *preference for self-education*, *prodigies*, *psychiatric illness in the family*, *psychopathology in the family*, *relations between parents*, *religion school environment*, *sexual abuse*, *sib size*, *social acceptance*, *social development of gifted children*, *social participation*, *special schooling*, *success at school*, *unhappy home environments* and *weak father*.

[97] Those checked up were *stages of the creative process*, *creative processes*, *preparation*, *illumination*, *restructuring*, *problem finding*, *ideation*, *evaluation*, *problem definition*, *information gathering*,

the 27 page references found at 'context' (connecting with 'press'), one entry reading 'Romanticism' (Zeitgeist) and, finally, entries such as 'everyday creativity', 'extraordinary creativity', 'genius', 'H-creativity' and 'collaborative creativity' (which I isolated during the analysis of various classificatory principles used to account for various creativity types),[98] it could be concluded that linguists and literary critics collaborating on this volume were pretty indifferent to topics creativity theorists consider vital from the point of view of understanding creativity better.

However, this last finding concerning the presence in the index of entries common to both fields suggests that the argument one of my informants used during one of the interviews – *linguists don't cite generic creativity*

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concept selection, *conceptual combination*, *idea evaluation*, *implementation planning*, *solution monitoring*, *a generative phase*, *an exploratory phase*, *the Geneplore Model*, *cognitive factors*, *divergent production*, *cognitive styles*, *convergent production*, *memory*, *cognition*, *an ill-defined problem*, *a well-defined problem*, *heuristic problems*, *algorithmic' problems*, *evolving systems approach to creativity*, *threshold hypothesis* and *intelligence*. Of course, this is a very crude research procedure and since we had no way of predicting whether the volume's editors and authors will be indexing the work's contents using the terms found in Wallas' or, reversely, Mumford's model, all of them were taken into account.

[98] The topics looked up in the index were *physical surroundings*, *workplace environments*, *cultural traditions*, *the historical milieu*, *zeitgeist*, *ortgeist* and *effects of culture upon creativity*; as for the 23 items isolated in the course of the last section on classifying creativity, those checked were *eminent creativity*, *historical creativity*, *big-c creativity*, *little-c creativity*, *mundane creativity*, *common creativity*, *moderate creativity*, *mature creativity*, *adult creativity*, *mini-c creativity*, *pro-C creativity*, *personal creativity*, *everyday creativity*, *artistic creativity*, *scientific creativity*, *vocational creativity*, *avocational creativity*, *malevolent creativity*, *computational creativity*, *group*, *collective creativity*, *real-life creativity* and *individual creativity*.

scholars because they don't read them (meaning *they know there is nothing 'over there' they could participate in somehow*) – is unfounded. Had this individual consulted this particular source, Pope and Swann, and not just the few articles on creativity in language she had read; next, if she had read the contributions to the volume and or followed some of the entries of the index, her *linguists* would have to become qualified as *some* linguists, or perhaps *many* linguists, but certainly, the default *linguists*, meaning *all* linguists, finds no support in the source I was consulting. A chapter by Elena Semino on metaphorical creativity does prove its author is familiar with the concept of value, a notion she came across while reading one of the leading contemporary authorities on creativity, Sternberg, and scholars such as Pope and Swann *are* familiar with the aforementioned 'Boden's (2004) distinction between "P-creativity" [...] and "H-creativity"' (2011: 8), whereas the contents of the previous page confirm that they are familiar with the work of Gardner (1998) and Csikszentmihalyi (1996). Finally, following an index entry reading 'transformation', one immediately discovers that this is Margaret Boden's conception of creativity. On this evidence, the reasoning *other linguists don't bother so why should we* must be rejected as unfounded.

This notwithstanding, the reaction these two individuals experienced does suggest that scholars who know that the collaboration of others is important from the point of view of more intense progress in the area they represent might consider expending greater effort to reduce the sense of alterity newcomers to their field may experience. As one of my informants put it when we were discussing what has happened, *if newcomers have problems with specifying*

how research conducted 'over there' applies to what those they identify with are doing, perhaps it would not hurt if someone told them in a more explicit manner. If this does not happen, they may lose interest and 'drop out'. And, as she added shortly after, *dropouts do not return*.

Is this suggestion that she has forwarded – which one may interpret as an expectation on her part that those new to a specific research area do deserve some special treatment, perhaps a volume addressed at them alone – a realistic one? The presence on the publishing market of excellent introductory-level textbooks prepared especially for individuals with no prior knowledge of a field suggests this can be done. Many academic teachers have had many opportunities to observe the difference resulting from using course books that their students find 'palatable' and how such sources can often decide for or against choosing a given area of specialization. On the other hand, if generic creativity scholars were to produce in a format that would take the needs of those new to this area of research practice, such an idea might put them at conflict with those within their own discourse community: individuals who have no problems with seeing how what is being reported 'applies'. Secondly, some of them might perceive producing in such a 'simplified' format as a sacrifice of some sort – a situation in which one is 'forced' to produce well below one's own level. That such a reaction would be nothing uncommon, suffice it to cite scholars such as Zdaniuk and Levine (2001), in which one finds many references to scripts in which 'helping the group' (which, in our case, would entail producing a text that may increase the level of collaborative readiness on the part of outsiders) is perceived as 'harming oneself' or, reversely, scripts in which one helps oneself, but harms the group,

ignoring, as one proceeds, the 'goals, symbols, and beliefs" of the 'social unit' (James and Cropanzano, 1994: 179) to which s/he belongs. Communicating with non-specialists – individuals who have not been trained to read in a disciplinary-specific manner and who, therefore, do not have what Shanahan (2009: 242) calls the 'disciplinary comprehension' that characterizes those inside our field of specialization – may, thus, be seen as a classic case of divided loyalties – a dilemma which can only be resolved from within, i.e. through a conscious decision on the part of the discourse community in question to commission its members to deliberately produce texts that include, without feeling, at the same time, that such a text will negatively affect the author's professional reputation.

2.4 Other problems encountered at this initial stage

Even though the main reason that prevented both of my informants from wanting to purse creativity in language further was that 'nothing-in-there-for-me' feeling that they experienced while trying to get a basic orientation within the parent field, both also admitted that this was not their only problem. Another was the disillusionment they experienced in connection with some of the topics studied. As they explained, when they *approached the body of research produced within the science of creativity they believed they would find something important there*. However, a lot of what they did actually find sounded like *that stuff you learn about in your language/arts program* (meaning 'banal'). And, as both claimed, *it is hard to muster interest when you are being told for the umpteenth time what you know perfectly well*: that *many*

creators had a troubled past, were orphaned and left to the mercy of strangers, drank a lot, had a history of mental illness, metal/physical abuse, took their own lives and were not always 'nice people'. It is due to this factor that, as both admitted, they soon developed *the 'so what' response* to what they were reading – a response that, as they claimed, budding researchers are warned against.[99]

Another factor that, as my respondents admitted, probably contributed towards their negative perception of the field was what they referred to as its excessively utilitarian orientation. *Fellow linguists*, as they claimed meaning the linguists they had read, *did not seem to care much about fostering creativity*; generic creativity scholars, in turn, *hardly ever talked about anything else* but the (positive) impact creativity research has on various societal problems. As this reaction seems to imply, to these two individuals, the idea that 'any research field' in applied (and theoretical) science 'has as its ultimate goal the improvement of human life' (Dörnyei, 2007: 277; based on Ortega, 2005: 430) has little appeal; what seems to matter more is a perspective they could identify with, in this case doing it the way those they are about to join do it. The everyday experience they are talking about in one of the interviews – i.e. suddenly seeing manifestations of creativity everywhere – every time

[99] This expression comes from one of the sources I had recommended to these two students during the course in which they took part. The citation in question says that young researchers should avoid 'run[ning] into a "so what" response' (Mackey and Gass, 2005: 17) – which is precisely what they were experiencing, seeing, firstly, that the major going-ons within the parent discipline are not related to what they think matters within the field they consider joining and, secondly, that what is discussed over there fails to meet the expectations they had (as we remember, both are hoping to find *something important*).

they open a newspaper, turn their television set on, or hear someone use the linguistic resources in an original way – only reinforces their conviction that this obsessive preoccupation with fostering creativity is fundamentally wrong. Linguists know better – creativity will flourish and needs no crutches to lean on.

One more interesting 'confession' these two young colleagues made was how this overall negative perception of the field they developed affected their judgment concerning the trustworthiness of the authors they read. As they argued, *every time they came across a statement pointing at an overall positive perception of work in the field, they soon found themselves taking 'secret delight' in all critical views on the same work*. When asked to elaborate on this issue, they referred me to two sources, Brown (1989) and Kohanyi (2011), who question the results produced by Simonton and Goertzel and Goertzel, the first (Brown, 1989: 26) by saying that the Simonton 'has not in detail clearly defined some important concepts including creativity and genius', the relationships he had detected will 'always [be] open to alternative interpretations' and the second (Kohanyi, 2011: 505) by pointing out that studies relying on biographical and autobiographical material do have many 'limitations'; limitations that are 'well documented'. Being critical themselves, they were intuitively identifying with authors who also expressed criticism, finding them more reliable than authors who had no reservations. As for the original sources, all work praised as 'seminal' raised suspicion, whereas all research classified as controversial was automatically rejected as an area in which to look for research ideas to be examined in greater detail.

Concerning terminological difficulties that, as demonstrated in Chapter One, are often mentioned as

a barrier to interdisciplinary research, both informants said that for them, the most problematic area was *terms used in connection with the research methods* adopted and/or discussed. This difficulty in understanding concepts (and issues) such as *internal consistency*, *interjudge reliability*, *discriminant* and *nomological validity*, to name just a few, soon translated into what they described as *an aversion to this*, as they called it, *over-excessive preoccupation with methodology on the part of generic creativity scholars*. As they argued, *they could hardly understand why so much attention is being devoted to what generic creativity scholars subsumed under the collective term 'measurements of creativity': the works by linguists* – at least those they had examined – *contained no indication that they treated the concept of (linguistic) creativity as requiring further operationalization*. Additionally, they were annoyed by lengthy fragments discussing what in the fragment below is called 'the philosophical underpinnings of research methodology' and which they dubbed as *stuff that may be interesting for those within this research type but not someone who is into different aspects of creativity*. The text containing the fragment comes from the book we were using together and, as they maintained, *well summarizes how they felt*, in addition to showing that their reaction was justified: as one of them commented at one point, *experienced researchers often feel the same sort of irritation*:

> I cannot relate well to research texts that are too heavy on discussing the philosophical underpinnings of research methodology. Although, being myself a researcher into motivation, I do accept that our behaviours (and particularly

sustained and consistent behaviours such as research efforts) are governed by abstract principles, I get easily disoriented in the midst of discussing research at such an abstract level, and often find myself thinking, "Can't we just get on with it …?" I was relieved to find that I am not alone with this feeling; for example, talking about alternative methods in qualitative research, Miles and Huberman (1994: 2) state: "At times it seems as if competing, often polemical arguments of different schools of thought about how qualitative research should be done properly use more energy than the actual research does".' (Dörnyei, 2007: 18)

The last factor that contributed towards their decision to withdraw was *the sheer size of the field* that was described as the scholarly inquiry of creativity. Two publications in particular were responsible: Runco's (2004) review article in which the field is characterized not only in terms of the major topics pursued, but also what he calls 'different disciplinary assumptions' (p. 660) and Sternberg *et al.* (2005), also discussing various disciplinary 'approaches' to creativity. An analysis of the former source showed that no less than ten different disciplines were engaged in the study of creativity;[100] an abundance that made the two students painfully aware of *how much they would have to process in order to get just a very basic orientation within the entire field*. What is more, the selection of research topics pursued within each of them again suggested that linguists and generic creativity scholars populated two

[100] These listed include the 'behavioural research on creativity', the 'biology of creativity', 'the clinical research' on creativity, research conducted from the 'cognitive' perspective', 'educational research', 'traditional historical research on creativity', 'historiometric creativity research', 'organizational research', 'psychometric' research and, finally, research conducted from the 'social' perspective.

separate worlds, their goals fundamentally different and the research conducted within the latter of little relevance for those with whom they started identifying.[101]

Summary of Chapter Two

As results from the analysis conducted above, some newcomers to a specific field of research may venture beyond just acquiring a basic orientation of the major developments that took place 'over there'. However, they do not start such a journey completely unprepared:

[101] The topics Runco enumerates include, for instance, important behavioural correlates of creativity (e.g. the role social reinforcement plays in developing creative behaviours), the localization of creativity in the brain, the EEG activity during various stages of the creative process, the role of the prefrontal lobes in creativity, or whether creativity requires the capacities from both rather than one hemisphere (Runco, 2004: 664), all pursued within the strand he terms the 'biology of creativity'. As regards the third disciplinary perspective isolated, 'the clinical research' on creativity, two mutually complementary areas are distinguished here: research concerning the relations between creativity and health and research on whether the incidence of certain mental illnesses in creative individuals really exceeds what has been established for less creative populations (Runco, 2004: 666). To illustrate what scholars representing 'educational research' into creativity may typically be after, Runco (2004: 670) cites such research topics as the impact test instructions (or the classroom environment in general) may have on divergent thinking, whereas those taken up within the remaining perspectives include historical changes in the concept of creativity, such correlates of creative performance as role models, war or zeitgeist (within historiometric research), and the relationship between creativity and such basic cognitive processes and concepts as memory, attention, knowledge, conceptualization, imagination, or intuition, some intellectual skills (divergent thinking), insight, Janusian processes, metaphors and synaesthesia (this last set, predictably, within the cognitive research into creativity).

not infrequently, they already know how members of their own discourse community approach the research topic in question, what they are interested in the most, and what research questions they typically ask. This knowledge subsequently sensitizes them to all differences in disciplinary identity, contributing to the growing sense of alterity as they proceed. All behaviours that are not consistent with how one's own research community typically proceeds are criticized. They become *their* concerns, not *our* concerns. Concerns over research validity are subsequently perceived as *an over-excessive preoccupation* (i.e. *obsession*) with methodology. The same was observed in the context of what my informants saw as the overarching goal of the parent discipline: *an obsessive preoccupation with research as a way of improving human life* (through fostering creativity), classified, as a result as *their goal*, not *our goal*.

As the results obtained imply, if no extra care is taken to reduce this sense of alterity newcomers to a given field may start experiencing, they may, eventually, decide that the work carried out 'over there' is of little relevance for those they identify with and lose interest. However, when I pointed out that it would not be fair on our part to dictate to others what research topics to pursue, my interlocutors answered that this was not what they meant. In other words, *they were perfectly aware that the choice of a specific set of research topics by representatives of a specific field is something we have little control over*. All they were hoping for was that as these research topics are presented, *those into domain specific forms of creativity are told in an explicit manner in what way they could partake*. The contributions they processed failed to do this. All they did *was to list new variables (e.g. birth*

order) to be investigated, but, as one of my interlocutors claimed, *linguists don't study such variables: they study what they classify as linguistically creative behaviour. And even if*, as she continued, *we could imagine a study in which we look at how (if at all) linguistically creative behaviour of our subjects changes depending on whether one is the first or the middle child, we probably wouldn't know how such a study could be designed.*

This last comment clearly demonstrates the recursive nature of research: we notice that even though both individuals declare that their only goal during this first phase was to learn what precisely the field they considered 'the parent field' looked like, they already start thinking about and analyzing what they are reading in terms of specific topics they could themselves pursue. Acting on this observation, in Chapter Three I will conduct a simulation of a few specific literature searches that these two individuals might have carried out had they not 'dropped out' after the first, preliminary phase of their study.

Chapter Three: The search for specifics

3.1 The conceptual and methodological underpinnings

As mentioned before (see section 2.1), the literature review that my two informants decided to conduct was carried out in order to obtain a general orientation within the field of generic creativity research. However, as one would be able to infer on the basis of one of the background texts to which they referred me, Kussmaul (1995), they must have, in the meantime, noticed that this is not the only reason for which scholars decide to reach for texts produced by others. As the fragment cited below clearly suggests, searches for something highly specific are not infrequent either.[102] Moreover, it is evident from this account that such searches initially encompass the literature produced

[102] In the fragment cited, italics have been used for specific information the text's author needs to carry on; the term under which he will be looking for this information (a 'problem term') being 'creative processes', likely formulated with the help of Preisner or any other publication on the topic of creativity he placed in the reference section at the end of his book and including, for instance, de Bono (1970), Getzels (1975), Landau (1969), Taylor (1975) and Wills (1989). Importantly, an analysis of the entire reference section in question also yields his own, earlier (Kussmaul, 1991) contribution on creativity in translation, which shows that the publication I am citing from here (Kussmaul, 1995) is not his first 'stab' at this research topic.

within one's own field of specialization (here Alexieva and Wills), but when the information found is not what one was hoping to find, one has no choice but to reach outside the field's boundaries:

> One might have thought that creativity would have been a popular topic in translation studies, but to my knowledge there have been no data-based studies in this area until now. There have, of course, been general discussions of creativity. Wills (1988), for instance, in his book on cognition and translating, devotes a whole chapter to creativity and Alexieva (1990) examines creativity in simultaneous interpreting. The gist of their arguments seems to be very similar. Creative translation has to do with unpredictable non-institutionalised use of language (Wills 1988:127) or the selection of a translation variant which is not rule-governed (Alexieva 1990:5). This is in line with the way creativity researchers define creativity by referring to the creative product. A creative product must be novel and must contain an element of surprise, it must be singular or at least unusual, but at the same time it must, of course, fulfil certain needs and fit in with reality (cf. Preisner 1976:2f.). Statements such as the ones by Wills and Alexieva are certainly true, but they are nothing more than a starting point. The question we should try to answer is: *How do we achieve these solutions?* (Kussmaul, 1995: 39; emphasis added)

Using this short fragment as a starting point I decided to ask my two informants what (if any) specific information they might be interested in had it not been for their decision to find themselves a different research topic. As they argued, at least three searches of this kind would have to be conducted. First, *the 'theory part' of their study into creativity in language would have to contain a section presenting definitions of creativity*.[103] Next,

[103] As in Chapter Two, all italicized fragments are translations of what the two individuals said during the interviews.

they would probably decide on *a section reviewing how creativity is perceived these days and perhaps even how these views concerning its nature evolved over time*.[104] Lastly, they would probably decide for a review of works *on organizational creativity*.

In response to my question concerning the rationale behind each of these hypothetical searches, the following explanation was provided. Staring with the first search item named, *all sources discussing linguistic creativity they came across had this phenomenon defined, albeit briefly*. The motivation behind this practice was simple:[105] *'[y]ou cannot observe anything without some kind of preliminary theory (concept) of what you are observing: even what you take to be a fact or a piece of data depends on your initial theoretical assumptions about what would constitute a relevant fact in the first place'* (Williams and Chesterman, 2001: 58; emphasis added).[106]

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[104] This 'historical overview' was, however, listed as something optional; as their previous experience dictated, not all research reports they read included this specific component.

[105] Unless stated otherwise, all fragments in which the word *motivation* (or a paraphrase) is used are a response to a request on my part to justify the decision talked about or the information provided.

[106] As indicated above, the source from which I am citing here, Williams and Chesterman (2001), is one of the 'background texts' that one of the two students used in her master's seminar. When we were discussing this issue during one of the interviews, she did not refer me to this specific fragment, but, since I knew this text (and even occasionally recommended it to my own students), I had no problems locating the chapter that, as I was assuming, she may have been referring to. When I later showed her the fragment in question, she confirmed that this is what she meant when she was providing me with an explanation concerning *the need to define*. The issue is also raised in Lyons (1981: 1), who stresses that it is impossible to divorce one's 'day-to-day speculations and research' from 'the particular interpretation' put

In larger works, as my informants continued pointing at the same background text in justification, *you don't just define: you cite definitions given in various sources and compare them with one another*.

If one followed this last as well as the earlier statement to the works on creativity in language these two individuals had processed at the preliminary stages of their research and which they clearly wished to emulate, one could attest that indeed, in many of these research articles, this (i.e. a definition) is what the authors start with. Reversely, in cases where no explicit definition has been provided, the audience can reconstruct it with ease by analyzing the range of the phenomena discussed and forming this term's extension.[107] The same would be true in the case of a source one of the informants was using at later stages (i.e. when she started considering a different research topic), Lakoff and Turner (1989), which also begins with

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upon the phenomenon studied. Much the same is argued on page 34, when he describes the mutual interdependence between general and descriptive linguistics, reminding his readers that 'in order to refute, or confirm the hypothesis [e.g. that all languages have nouns and verbs] the descriptive linguist must operate with some concepts of 'noun' and 'verb' which have been supplied to him by the general linguist'.

[107] To illustrate, one may cite such authors as Czajka-Bubniak (2010) or Dupel (2010), whose examples typically include puns (as a form of word play), repetition, metaphor and imagery, or Chovanec (2011), whose major point of focus are such 'creative *ad hoc* formations' as *weapons of ass destruction, weapons of mass distraction*, *weapons of most destruction, weapons of catastrophic destruction* or *weapons of mad destruction* (to name but a few) – all created by modifying a well-known, entrenched expression *the weapons of mass destruction* through wordplay. Other instances of 'novel and unexpected combinations' Chovanec discusses had been produced by the '"substitution on the basis of phonological, morphological, semantic and other types of similarity as well as allusion"' (Renouf, 2007: 74, as cited in Chovanec, 2011: 84).

an explicit definition of creativity – a definition which sees creativity as the process of combining.[108]

Concerning the hypothetical section presenting various theories of or approaches to creativity, *this*, as they explained, *is also what you always have to do*. Drawing on the text I cited from above (Williams and Chesterman, 2001), as well as yet another background text they used with me, Dörnyei (2007), literature review sections differ depending on the function they are intended to perform (p. 281) but, as this last author continues onto the next page, 'in university assignments (for example, dissertations and theses) it [i.e. a review of the literature] is also to prove that the author has done his/her "homework" and has become familiar with a wide range of relevant theoretical and research approaches.' From this it follows that *every thesis must have a section in which one gives an overview of the theories that had been forwarded with a view of*

[108] In the fragment in question, the two scholars (Lakoff and Turner, 1989: 72) claim that when a poet 'lead[s] us beyond the bounds of ordinary modes of thought and guide[s] us beyond the automatic and unconscious everyday use of metaphor', this is because s/he possesses a special ability to 'combine ordinary concepts, everyday metaphors, and the most mundane knowledge to form conceptual compositions, orchestrations of ideas that we perceive as rich and complex wholes'. This ability is something which, on the one hand, a poet shares with other artists – for instance a composer – who also 'combines the simple elements of tonality – notes and chords and harmonies – into musical phrases and musical movements of great richness and complexity' (Lakoff and Turner, 1989: 72), and – on the other hand – distinguishes him/her from the rest of us, who are, apparently, not capable of breaking away from the 'ordinary, automatic modes of thought'(Lakoff and Turner, 1989: 72). Thus, whereas a poet may evoke a conceptual DEATH IS DEPARURE metaphor with such unusual words as '"Because I could not stop for Death / He kindly stopped for me,"', ordinary people will 'routinely evoke [it] with the conventional words "pass away"' (Lakoff and Turner, 1989: 107).

explaining the nature of the phenomenon in question, which, in their case, would mean a section presenting various theories of creativity.

As concerns the last search item they mentioned, *'something on organizational creativity'*, *all texts written by students of creativity in language they came across described the linguistically creative behaviour of individuals that were functioning within larger settings. These television and press journalists*, as my informants continued, *were probably not entirely free in doing what they did: the language they were using while broadcasting live or while writing their articles having been continually evaluated relative to whether it attracted viewers/readers or, reversely, antagonized the more conservative among them. 'Creating' in these conditions must, thus, have had all the hallmarks of 'that type of creativity' that is expected of individuals who work for large companies, in which one is also being evaluated relative to one's capability to come up with novel solutions or products as a sine qua non of the company's survival on the market.*[109]

[109] The two informants' interest in this last search item can also be explained by analyzing the contributions on creativity in language they had once processed: both press and television journalists, whose creativity constitutes a considerable portion of examples cited by Czajka-Bubniak (2010), Chovanec (2011), Dupel (2010) and Kövecses (2009; 2010a, b and c) function within some institutional settings. A more detailed analysis of how some of these linguistic creations came into life might also reveal that many of these individuals (e.g. television journalists) must often depend on what other members of the crew can supply to them at a given point (e.g. visuals), which suggests a yet another possible search item, 'collaboration', consulted in order to determine what role it may play in enhancing (or inhibiting) an individual's creativity, but neither 'collaboration' nor 'institutional creativity' was among those search items isolated.

However, as my two informants pointed out in response to my question concerning whether they would like to somehow expand on what they just said, *finding relevant information in these three broad categories would not be their only concern during such hypothetical searches*. As they explained, *when one is at this particular level* (meaning doctoral studies), *one is repeatedly reminded of the 'obligation' to make a contribution to science; to 'create new knowledge'*, as this is expressed in a text to which they had been referring continually, Williams and Chesterman (2001: 2). Since, as the same source claims, one can make his or her contribution by 'suggesting an answer to a specific question' or by 'testing or refining an existing hypothesis, theory or methodology' (*ibid*.), their searches for information in these three broad categories would be accompanied by a simultaneous search for *problems that others had not managed to solve, areas of controversy, the field's competing issues or claims that still need to be verified with more empirical data. For even though*, as they continued, *their former teachers often stressed that young researchers should not expect that authors of texts they will be reading will 'provide them with a "recipe" for interesting research problems that are worth exploring'*,[110] *they should nevertheless keep their eyes open to all these fragments in which these authors*

[110] The fragment in quotation marks is my translation of a yet another background source one of my informants had mentioned, Brzeziński (1984), the Polish text, located on page 13, reading: 'Czytelnik nie powinien oczekiwać od autora, iż ten wskaże mu receptę na formułowanie ciekawych poznawczo i wartościowych problemów badawczych.' However, this author also next makes a reference to the literature as a source of new research ideas, alongside factors such as intuition or discussions with individuals conversant with a given area of research.

call for further research as it is with such fragments that one's own work often begins. Other sources they came across suggested the same, 'the literature' being presented in them as where '[m]ost research topics originate' (Dörnyei, 2007: 73).

As concerns the answer to my next question – the strategies they would use if they indeed decided to scan the literature on creativity for information about these three search items – they claimed that *what they usually do after having collected the materials depended to a considerable extent on the type of publication consulted. If this publication is something shorter, for instance a research article, they first checked its abstract to see what the study conducted was about* (i.e. what the research problem was), *what results were attained and what the methodology employed was.*[111] *In the case of books, as well as other, longer research reports such as dissertations, they scanned the tables of contents as well as, whenever the source has an index, look for the information they needed among the entries these indexes contained.*

In the case of long index entries (i.e. entries that contained multiple page references), *the usual way of proceeding was to start with the first of them, find the fragment to which the page reference referred, read the information, and repeat the procedure using the next page reference as a starting point*. In many cases, however, in particular *if the information found was*

[111] As they admitted, this last piece of information, i.e. *information about the methodology of the study often acted as a deterring factor*, which is in line with what was reported in the first chapter, quantitative research reports often feared by scholars working in the qualitative mode.

difficult to understand, one had no choice but to *read the entire entity (e.g. the chapter) in which the fragment in which this information was given was located*. Since this, of course, slowed down the entire process of information retrieval to a considerable extent, both admitted that often such incomprehensible fragments were simply ignored – *being faced with deadlines, they simply could not bother*.

The strategy my two informants described and which I briefly characterized above was very much like those modelled by Mitchell (1983), according to whom before a search for some information actually commences, one (in our case a scholar engaged in a particular research activity) must actually realize s/he has come across a problem s/he is not able to solve on his or her own. The text from which I cited at the beginning of this section illustrates this well, the problem Paul Kussmaul encountered being his initial inability to help novice translators in cases where standard translation strategies are of no use. As this text clearly suggests, its author could not start his literature review with the broad 'How do we achieve these solutions?', but when one processes the entire fragment (Kussmaul, 1995: 39–40), one sees that somewhere in between, he managed to formulate the 'problem term' (in his case 'creative processes') under which the sources he had located could be searched. This, in turn, enabled him to start searching for 'the problem term' in the outer structure of the sources he located (e.g. the thematic index at the end) and – after the appropriate entry has been found – to go to the part of the book at which, as the index has told him, the information he needed was located. The fact that Kussmaul's chapter on creativity in translation contains a reference to the work by generics not only confirms that the information found

suited his purposes; it also helps us figure out that the last two stages of Mitchell's model entail extracting the information found and integrating it into one's own work.

The information obtained during this part of the discussion session not only suggests what 'problem terms' my two informants would be using while looking for specific information, but also what 'filters' they would be employing while evaluating the overall value of the texts scanned. Consequently, texts containing references to problems they could themselves take part in solving would be evaluated as more informative than texts in which information of this kind was not provided. However, it was at precisely this point when an additional requirement was imposed. As one of my informants claimed, *being a novice researcher, she still preferred texts in which a reference to a field's competing issues or solved and unsolved questions was appended with* what she provisionally termed as *the 'who'* – a specification on who exactly was meant when a plea for more intense research on the issue in question was being made. As she continued to argue, *formats in which one limits oneself to specifying a research gap/area of controversy*[112] *may*

[112] Many specific examples could be cited, some of them coming from texts this individual processed during the first phase of her research. In one such fragment, we read that studies in the nature-nurture category 'do not seem to have been explored over longer periods' (Vernon, 1989: 101); in another, that there is still 'no empirical research on the question of whether age per se or age-within-specialty is the main determinant of creativity' (Martindale, 1989: 222). As for the second work under investigation, excerpts pointing at areas in which further research seems necessary, but which this individual would also reject as 'incomplete', include, for instance, Parthasarathy, Doboli and Paulus (2011: 463; the fragment reading: '[a]lthough there is a growing literature on innovative and entrepreneurial teams, much of this literature relies on surveys of team members and managers'),

be useful for experienced researchers, but those new to research would clearly prefer more detailed guidelines.

During the next interview session, she confirmed that for her personally, the most 'secure' format was like the one used in a short text I came across while working on the first part of my analysis and that I e-mailed to her in order to determine precisely what her priorities were. As we can see below, the author of the text, Boden, not only specifies what needs to be done ('Conceptual spaces would have to be precisely identified and mapped …') and whose assistance would be necessary ('Literary critics, musicologists, choreographers, and historians of art …'), but also explicitly informs the audience about *the overall significance of the problem identified* ('A scientific account of creativity is possible only if …') – another valuable 'prompt' that my informant stated was one of her priorities:[113]

A scientific account of creativity is possible only if the ideas conveyed […] in Section II can be clearly expressed. Conceptual

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Basadur and Basadur (2011: 86; [in a fragment that says that in spite of a substantial amount of 'theorizing […], there has been only a small amount of empirical research attempting to operationalize these theories.']), John Steiner (2011: 224, when he claims that 'the role of collaboration in human development has hardly been explored') or Harrington (2011: 264, when he argues at the beginning of his article, that '[t]he systematic study of environments which help support the work of autonomously creative people is much less developed than the study of environments which support the creative activities of people working within an organization'), but countless others could be cited.

[113] As she explained, *many abstracts she had processed in the past contained a justification on why the author of the text found the problem worth studying*. This, however, i.e. specifying the potential significance of her own work was *something she always had problems with, partly because she never believed in her ability to contribute something new in a situation where so many (smart) people* (meaning other scholars) *had written on the topic or topics before*.

spaces would have to be precisely identified and mapped, and ways of exploring and changing them (some general, some domain-specific) would need to be explicitly defined. [...] Literary critics, musicologists, choreographers, and historians of art and science have much to say that is relevant. But their knowledge of the various conceptual spaces in people's minds must be made as explicit as possible, to clarify just which structures can, and which cannot be generated within them. (Boden, 1995: 6)

The second 'filter' affecting the same individual's evaluation of what she would be reading concerned one problem term only: the theories of creativity that she would be looking up. By contrast with the rationale she had provided for the first filter – which I paraphrase as, firstly, 'give me a guarantee that the research topic I am starting to explore is not a marginal one, but something really "big""; secondly, 'tell me what precisely you want me to do'; thirdly, 'tell me precisely it is my help that is needed' – here the individual in question was clearly alluding to what she had learnt during the preliminary phase of her research. And, as this experience her taught her, *not every theory she was reading about had the same explanatory power. What is more, these theories differed in terms of which of the six P's they were best at explaining*. Accordingly, as she continued, *she would almost certainly be evaluating the texts located through* the *interpretive lens of what she had learned when she was trying to get a general orientation within the parent field*, as, apparently, *aligning oneself in a camp with those theorists who provided an excellent characterization of the person, but had nothing to say on the product would make little sense for a linguist, as it is the product of*

creativity that s/he wants to have explained. Taking into consideration the number of theories she read about, such information would be of considerable help, as it would immediately direct her towards sources that she should read carefully and away from work which seemed of secondary importance and that she would need for the purpose of comparison only.

The few background texts she had referred me to in order to further justify why she would be using this filter seemed to be making the same point. For instance, based on what she read in Atkins and Rundell (2008), she could conclude that theories differ in terms of their applicability – depending on what one's own research interests are, some will simply prove of less use than others.[114] Next, many theories are influenced by their creators' 'personal ideologies and motives' (Williams and Chesterman, 2001: 60), which for her meant that one does not have to set for a theory one does not identify with.[115] Other texts she did not mention, but in which the same position is taken,

[114] This is a text that I had been using in a lecture this student had during her undergraduate program. The text's authors (Atkins and Rundell, 2008: 4) start by saying that '[l]exicographers *have a great deal to learn from linguistic theory*'; consequently, 'many of the recent improvements in dictionaries can be attributed to the intelligent application of *theoretical ideas*'. On the other hand, as they argue on page 9, there are situations in which they 'share Johnson's view that "in lexicography, as in other arts, naked science is too delicate for the purposes of life"'. [...] Consequently, efforts to make them conform to one particular way of looking at language, efforts – in short – to describe language 'scientifically', have usually foundered when they come up against what Landau (1993: 113) refers to as 'the stubborn diversity of actual usage'.

[115] The use of this citation as well has been consulted with the informant in terms of whether this is what she actually intended when making her case.

i.e. in which one is warned against 'borrow[ing] a theory from another discipline' without first making sure to '"understand what it means in that discipline and how it is judged there"' (Levin, 1993: 33) clearly explain this concern on her part.

Finally, regarding the source types that these three searches would be conducted on, both individuals unanimously agreed that they would probably *again go for the book they had been using in the preliminary phase of their research. However, this being a fairly dated one, they might also secure themselves another one they found on the Internet. Using both would be in conformity with a requirement to use relatively recent work, not to mention the fact that 'knowledge coming from one inevitably idiosyncratic source' need not* – and usually is not *'of wider relevance'* (Dörnyei, 2007: 153).[116]

The searches I then decided to conduct myself take all these realities into account. The three search items, with the help of which the literature on creativity was investigated in terms of these texts' capability to persuade others to 'come over', are those my two informants had nominated; the 'filters' used identical with what they said would be their priorities and the search strategies in accordance with how they said they typically proceeded when scanning longer sources. Lastly, the books I scanned are the same books they said they would probably choose. In the first analytical section that follows, a simulation of what my informants would have found had they, at one point, conducted a search for 'definitions of creativity', I start with a brief introduction of the two publications they 'chose'.

[116] Actually, this fragment the two students referred me to concerned a different issue: the generalizability of case studies, but they have clearly decided that it may also be used in support of their case.

3.2 In search of definitions of creativity

The two books I decided to evaluate on criteria specified by my two informants included the 1989 *Handbook of Creativity* (henceforth *HOC*) and the 2011 (second) edition of the *Encyclopedia of Creativity*. In Chapter Two, I briefly described the two students' motivation behind reaching for the older source: handbooks were nominated in one of the background texts they mentioned, Adams and Schwaneveldt (1985), as one of the possible publications in the 'secondary' source category; what is more, this one was relatively easy to obtain, being one of the books available from the university library. Regarding the second source, the two students became familiar with it through the Internet, with some of the chapters from it available even *via* such popular search engines as Google.

Easy availability (especially in the case of the older source) may not have been their only motivation. As we read in Adams and Schvaneveldt (1985: 54), both encyclopaedias and handbooks not only 'typically contain a good review of work on a given topic'; they also give one 'the basic ideas, research concerns, and exposure to problems while researching the topic'. By analyzing what others have studied, one may quickly determine the issues one may further explore and try to explain.

If the accounts provided are not detailed enough, both (i.e. encyclopaedias and handbooks) will also help one identify useful primary sources that one can also consult before taking up the challenge of their own research. In consequence, even if both may be 'a bit out of date, and may tend to simplify and overgeneralize' (Williams and Chesterman, 2001: 33), it would be highly unlikely for them not to contain information on a field's competing/

unresolved issues which, as we remember, would be an important concern for both students all throughout (i.e. irrespective of which of the three search items they would be on at a given point).

Another factor that may have affected their choice was that both texts have the bare 'creativity' in the titles. Accordingly, both constituted a good match from the point of view of what these three specific searches aimed at: finding more on definitions of creativity, learning more about theories of creativity and, finally, learning more about anything that applies to that creativity that one observes within larger settings, this last information likely to be encoded under 'organizational creativity'.

The moment I secured myself both of them, it was clear that the more recent text differed considerably from *HOC* – a source with which I became familiar while trying to compile a list of research topics generic creativity scholars investigated – and which has clearly been addressed at an expert audience: readers who already have a considerable knowledge of the field. In turn, the 2011 edition of the *Encyclopedia of Creativity* (henceforth *EOC*) is clearly intended for the layperson, not just an expert.[117] This has

[117] In fact, the work is addressed at three distinct groups. Those in the first, 'teachers, scientists, coaches and consultants, architects and designers, trainers, managers, actors, writers, directors, painters and other individuals in the creative arts, inventors, therapists and other professionals who utilize creativity in their work', will reach for the volume firstly because are 'interested in learning more about their own creativity and the creative process' and, secondly, because they know they need to 'construct an environment that allows creativity to flourish' (Runco and Pritzker, 2011: xxi - xxii). The second and third groups are students of creativity and fellow creativity researchers, looking for 'the opportunity to find new perspectives, which [...] will suggest fresh insights about themselves, their work, and their place in the world.' The distinction between generic and domain-specific

affected the two books' access structure – a more traditional one in the case of *HOC*, where access to individual search items can be gained by either scanning the book's table of contents or the index located at the end of the book, whereas in *EOC*, access is additionally facilitated by the so-called 'cross-reference sections', placed at the end of every article and referring the reader to other related articles of the encyclopaedia in which, as the Preface informs us, 'more detailed information about a subject' may be found.[118]

How have these two sources fared in the case of the first search item nominated, 'definitions of creativity'? Starting with what we ended with above, i.e. how easy it would be to locate the information in question, then the older source, *HOC*, does make the reader's life more difficult, its index featuring no such entry. Consequently, only those who would try their luck at the one reading 'creativity' would be able to find it, following the page references placed beside a nested 'criteria for and definitions of'. The more recent publication, *EOC*, is more reader-friendly in this respect: 'definitions of creativity' is an autonomous index entry, also followed with references to pages on which the book promises to have something on this specific topic.

However, facilitating access, especially for those who need not be familiar with the terminology used within a given field, is only one factor on the basis of which readers will be

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research has not been mentioned and it is, in consequence, not clear whether and how it has affected the work's design and content.

[118] The fact that *EOC* has also been designed for readers with no prior (expert) knowledge of the topic has had a direct influence on the structure of individual articles and their contents (Runco and Pritzker, 2011: xxv). Firstly, each of the articles has been preceded with a glossary of terms 'that may be unfamiliar to the reader defined in the context of its use in that article'. Next, an outline allowing for 'a quick scan of the major areas discussed within each article' has been provided.

evaluating their searches as successful. Another is whether the information lead to from page references located at 'definitions of creativity' constitutes a match for what they were hoping to find. Assuming that many readers (those new to the field in particular) would hope for a definition that would tell them what makes a creative product stand out – as we remember, the passage by Lyons cited in Chapter Two suggests that it is precisely this type of a definition one will be looking for in the literature produced within the 'parent' discipline[119] – such readers will probably be disillusioned by all these definitions that do not specify such a product's attributes or defining features.[120] A different but not an unrelated problem is that many definitions referred to from the index are incomprehensible for anyone but a specialist in a given field.[121]

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[119] As mentioned before (2.2), in the fragment in question Lyons (1981: 1) compares a language theoretician to a biologist, for whom the first concern is always to determine what life is, as it is 'the presumed meaningfulness of the question "What is life?" – the presupposition that all living things share some property or set of properties which distinguishes them from non-living things – [that] establishes the limits of the biologist's concerns and justifies the autonomy, or partial autonomy, of his discipline.'

[120] To illustrate, one may cite an article by Acar (2011), in which one learns that creativity 'is defined as the outcome of the individual's behavior in a context' (p. 75). The same objection can be raised in reaction to the one proposed by Oades-Sese and Esquivel (2011: 335), who 'define' the phenomenon in question as a 'multifaceted human experience involving the interaction between predisposing genetic factors and environmental or social influences', or the one found in Davis (2011: 115), who stresses that to be called creative, others (e.g. 'one's peers [or society]') must recognize us as such.

[121] A good case in point would be a discussion found in Dowd (1989: 238), whose critique of the definitions proposed up to a certain point ends with a suggestion that creativity scholars should rather go for the

The third practice that many readers might find objectionable is being referred to definitions which the literature refers to as 'definitions by examples'. Fortunately, in many cases, examples have only been given a complementary role to fulfil (i.e. to support the explanation and illustrate the definition's applicability),[122] but references to examples as the main defining strategy have also been found, possibly forcing the reader to figure out whether 'his' examples do resemble those the text author has given.[123]

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one which 'focus[es] on the process of divergent thinking'. Again, all those who represent research into some highly specific manifestations of creativity might argue that this is not what they expected when following an index entry reading 'definitions of creativity', not to mention the fact that understanding what is meant here would require additional, time consuming searches, either in the source being scanned or other works such as the aforementioned Kussmaul (1995), in which a more comprehensible description of Guilford's 'Structure of Intellect Model' by an outsider to the field of generic creativity research has been provided.

[122] The two contributions that can be cited in illustration of this more commendable strategy include Haensly and Reynolds (1989: 114) and Martindale (1989: 212). In the first case, an example featuring an emergency escape seat has been used in order to demonstrate that creative products usually consist of a combination of a number of a few 'quite remotely associated elements as' – in this case a chair, a parachute, and a propulsion device. In the second case, examples involving Einstein's equation and poetry are cited (Martindale, 1989: 212), their job, this time, to show that the components from which something is created are not invented *de novo*. Poets, namely, 'not generally invent new words but put old words together in new ways.' Also the components of Einstein's equation were already there when he invented it and so has 'the concept of energy or the operation of raising a quantity to a power'.

[123] As mentioned above, it is due to this feature, incompleteness, that authors such as Zimmermann, Lorenz and Oppermann (2007) advise against their use, at least as a defining strategy on its own.

The next issue many readers might raise is that not enough has been done to teach them to differentiate between prevailing and alternative views concerning a certain problem. This is probably best illustrated when one considers that virtually all texts analyzed implied that creativity is a matter of combinability alone. In many of these texts, this erroneous impression might be reinforced by citing the authorities who support such a view and some readers might assume that if this view of creativity has been propagated by such 'big' names as Mednick or Poincaré – names probably well known to every educated reader – then '[f]orming unfamiliar combinations [...] is the only creative game in town' (Boden, 2007: 4).[124] Texts such as Boden that I just cited from compel one to revise this view and we can well imagine how disappointed one is going to be upon discovering that the two bulky volumes they had once consulted failed to inform them that such alternative proposals do exist.

Repeating the same information again and again has also been observed in connection with other aspects of creativity, including the aforementioned attributes of creativity I briefly discuss above in the context of

[124] As is the case with the two aforementioned chapters, Haensly and Reynolds and Martindale, respective citations claiming that creativity consists in 'the forming of associative elements into new combinations which either meet specified requirements or are in some way useful' (Mednick, 1962: 220, as cited in Haensly and Reynolds, 1989: 114), and that 'to create consists of making new combinations of associative elements which are useful' (Poincaré, 1913: 386, as cited by Martindale, 1989: 212). As for the articles in *EOC* in which the same view is propagated, one may mention Mayfield (2011) and, in fact, only one article in *EOC* refers the reader to Boden's theory, in view of which there exist two additional creativity types, exploratory and transformational, but the manner in which this is done will prevent anyone not familiar with the field from identifying her approach as an alternative to the 'majority view' of creativity just characterized.

definitions that fail to define, at least in the classical sense of the word. Starting with the first of them, novelty, all those who would diligently follow the twelve page references in the first volume of the encyclopaedia, and next repeated the procedure using the ten page references this publication has in its second volume,[125] would emerge, some two days or some two weeks later, depending on how busy they were, reassured that creativity is about producing something novel. Had s/he applied the procedure to the older volume, *HOC*, s/he would discover that all contributions to it – starting with Vernon and ending – some three hundred pages later – with Goetz also repeatedly single out novelty as the basis of which one distinguishes creative from imitative.

Precisely the same view is obtained for the next criterion on which Western scholarship has decided to recognize creativity, value, or repeating information about the criteria on the basis of which ideas are judged as more or less creative. To exemplify, a reader of *HOC* who went to page 212 would learn that '[a]mong chosen combinations the most fertile will often be those formed of elements drawn from domains which are wide apart' (Poincaré, 1913: 386, as cited by Martindale, 1989: 212) – a view s/he already came across while being on page 115, on which s/he was informed that one of the criteria that Mednick used in order to assess the creativeness of new ideas was 'the degree of mutual remoteness of the elements of a new combination' (Mednick, 1962: 220, as cited in Haensly and Reynolds, 1989: 115).

[125] Those listed in the first volume would refer him or her to pages 75, 115, 168, 233-234, 335, 352, 358-368, 383, 409, 449, 497 and 658; as for those found in the second volume of *EOC*, the ten pages referred to are 69, 140, 161, 224, 291, 384, 427, 503, 297 and 427.

The second objection that one may put forward in connection with the two attributes of creativity concerns the amount of time that will have to be spent while trying to establish what specialized senses these two terms, *novelty* and *value*, may have, over the course of time, acquired. In many works analyzed, the reader is informed that it is perfectly safe to understand the word *novel* in much the same way as ordinary language dictionaries define it – 'original and new' (Cropley, 2011a: 358),[126] which is in conflict with what s/he would find in authors such as d'Agostino (1984),[127] who suggests that at least a few such senses have been developed by *novelty* alone. Conversely, in cases when a term given as an attribute of creativity is defined in a way that leaves no doubt concerning the specialized meaning it has developed within the science of creativity, the reader will next discover that the definition in which it was used applies only to one certain creativity type at the exclusion of others.[128] Third, some

[126] Other authors who paraphrased it as new or original i.e. in the same way *novel* is defined in general purpose dictionaries include, for instance, Vernon (1989), the precise wording being that by novelty we understand 'a person's capacity to produce *new* or *original* ideas, insights, restructurings, inventions, or artistic objects' (p. 94; emphasis mine).

[127] Note that this text was not among the background texts my two informants listed when asked to justify the decisions they took.

[128] A good illustration of this is the chapter by Vernon. When he starts do define the second essential attribute of creativity, appropriateness (also called value), he states (Vernon, 1989: 94) that a product will be regarded as 'appropriate' if it is 'accepted by experts as being of scientific, aesthetic, social or technological value.' But as soon as our hypothetical reader has reached another place in Vernon's chapter that the 'definitions' subentry would refer him to, s/he would be informed that this definition applies to eminent creators only. As other scholars he cites at this point – 'Nicholls (1972), Mansfield and Busse (1981) and others' – he, too, prefers to 'restrict the term *creative* to a very

of the explanations of how the words given as attributes in creativity as understood by specialists are couched in a language which may be difficult to understand for non-specialists.[129] Finally, synonymy is not uncommon (novelty being glossed as originality and vice versa). Apparently, these texts' authors either forgot that, firstly, 'such indirect definitions by synonymy [...] suffer from generality' (Zimmermann, Lorenz and Oppermann, 2007: 558) and, secondly, that if terms such as novelty and originality (or appropriateness and value, for that matter) 'are used with similar meaning, any definition including one of the terms is self-referencing in loops', meaning that its 'practical usefulness' is 'limited' (*ibid.*). Such defining practices clearly show that many of these scholars were addressing the insider – individuals well aware of all meaning nuances developed by the words in question.[130]

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small proportion of scientists or artists whose productions are highly valued, say, the most eminent 2% or so of the total populations of Western and developed countries'. The fact that, as Vernon continues, '[s]uch productivity *is quite rare* and, though a matter of degree, tends to be concentrated among *relatively small numbers of scientists and artists*', leaves the reader uncertain as to whether appropriateness and novelty is something that also characterizes the work which other scholars classify as little-c creativity, moderate creativity, Pro-C creativity or everyday creativity, to provide just a few alternatives.

[129] To illustrate, one may cite a fragment in which Martindale (1989: 212) refers his readers to Amabile's (1983) claim that ideas produced in an algorithmic (and not in a heuristic) fashion do not count. As Martindale continues to argue, this fact explains why many creativity scholars, Amabile included, insist that those to judge whether an idea is creative must be experts in a given field. Laypeople, as the argument goes, would not be able to 'recognize that the idea rose from already known algorithms' – both passages incomprehensible to 'outsiders' and thus requiring further literature searches.

[130] The same objection may be raised in connection with definitions which say what creativity is not. A good case in point is a lengthy

As results from this part of the analysis, outsiders to the field of generic creativity research might, in consequence, suggest that their searches under a problem term reading 'definitions of creativity' would be easier if respective passages authors and the volumes' editors (1) managed to predict to a greater extent under which term words this information will be sought; (2) avoided repeating the same information over and again; (3) avoided giving information that will later on have to be classed as incomplete (e.g. in the case of creating an impression that creativity is a matter of combinability alone); (4) avoided defining strategies which are in conflict with the reader's expectation to be presented with an operational definition of creativity s/he will be able to apply for the purpose of his or her own work on the phenomenon; (5) avoided language which only insiders understand. Regarding the second criterion on which the literature written by generics would be evaluated, namely its ability to inform novice researchers of areas into which they could make their own contribution, here, too, some improvement could be recommended, as none of the units analyzed used the format my two informants said was optimal in their case. If these texts' readers were told what the problem

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fragment in Goetz (1989: 413), who asserts that '[t]he meaning of the word creativity needs some restrictions to disallow the bizarre, random, predictable, imitative, or trained acts from being labeled creative'. In this particular case, however, the author seems well aware of the dangers inherent in defining by means of antonyms in negation and each term she uses is further elaborated upon and often appended with an illustrative example, as when she explains that to differentiate between creative and predictable, one must be particularly sensitive to all 'novel or original response[s]' that are 'the result of following a routine formula, as for example, in extracting square roots'. Other authors analyzed seem unaware of the confusion this defining practice may cause, in particular for scholars looking for an operational definition of creativity.

was (i.e. what precisely would be expected of those who decided to answer the call), no information on who is best qualified to help with it was provided, and so on.

All of these aims would probably be easier to achieve had the volume planned been, from the moment of its conception, addressed at those into domain-specific manifestations of creativity and not specialists or (as in the case of *EOC*) specialists from within the field and lay readers only. In the discussion section that follows the simulation of searches carried out with respect of the remaining two problem terms that my informants specified, I offer a few suggestions concerning what specific improvements would have to be introduced in order to avoid the problems specified above.

3.3 In search of theories of creativity

As resulted from one of the interviews conducted with my two informants, to evaluate their search for everything connected with the theories of creativity as satisfactory, the texts containing this information would, firstly, have to characterize the theories discussed in terms of which of the six P's individual theories were best at explaining. Another welcome 'addition' would entail some hints on how the theory or theories proposed were evaluated among other creativity scholars. If this information was missing, someone like them would be prone to falling for a theory which others have long dismissed as unconvincing or, in the first case, fall for one whose adoption might later be questioned on grounds that it excels on all counts except for what was one's primary object of interest – in this case the product.

Having processed some of the sources on linguistic creativity my informants read during the initial phase of their research (i.e. when they were still assuming this could be a research topic they would like to investigate), I additionally decided that both of them might, after a moment of reflection, add yet another criterion on which the information found would be assessed. All of these studies namely analyzed less eminent cases: mostly press or television journalists. Accordingly, while carrying out my analysis, I decided to assess the performance of these texts' authors in terms of whether they specified the level of creative eminence the theory being presented applied to.

Had these three criteria been the only ones used, most readers who would process the two sources nominated in 3.1, would, without a doubt, agree that if any work meets them all, then it is an article by Kozbelt (2011b: 473–479), found in one of the volumes of the *Encyclopedia*. To demonstrate this, as well as in order to increase readability, I have decided to arrange its contents within a table, with the first two columns containing a general name the article's author gives to theories in a given category and a brief description (the latter usually explaining the name) of what they aimed at. In turn, the remaining two show how the article fared on the two 'filters' isolated: a theory's capability to deal with one or more of the six P's as well as which type of eminence it focuses on.

As we can see in the table, Kozbelt's article satisfies one of the criteria my informants specified, which would thus allow them to immediately isolate those theories which, as they assumed, would be useful from the point of view of the research interests of the research community they considered joining. Importantly, too, it would also allow

them to isolate theories which concentrate on this level of creative magnitude (less eminent creators) that linguists usually describe – an additional criterion I decided to use while simulating a search for various perspectives on creativity.

As regards the next criterion specified by them, helping the reader who is new to the field distinguish between theories which are highly regarded and those that 'have long since [been] relegated [...] to the dustbin' (Wax, 1969: 81-82), it has also been met. Typological theories are described as 'among the most promising for achieving a richly integrated, multilevel understanding of creativity' (Kozbelt, 2011b: 477),[131] whereas systems theories as '[s]ome of the broadest and most ambitious theories of creativity'. Selected specific theories in a given category have been furnished with a similar evaluation/critique.[132]

As regards product-oriented theories, i.e. theories that, in my two informants' opinion, a student of creativity in language will, probably, be most interested in, they also have been 'recommended', even if it is to be doubted whether all linguists would share the article's author's enthusiasm over what constitutes these theories' main

[131] As he continues to argue (Kozbelt, 2011b: 477), '[n]ot the least virtue of such an approach is the potential rapprochement between historically opposed camps in the study of creativity, such as the problem solving/expertise and Darwinian approaches, both of which can be at least partly absorbed into typological models.'

[132] To illustrate, Csikszentmihalyi's systems theory has been recommended as one which (p. 477) 'has many advantages, not the least of which is acknowledging the importance of extra-personal, sociocultural factors, which were previously underemphasized in creativity research.' In turn, 'the Darwinian view' is characterized as one which 'arguably overemphasizes the role of chance factors in explaining creativity.'

advantage: their quantitative objectivity (products can usually be counted) and inter-rater reliability – two concerns linguists do not seem to share.[133] If such a theory were to be settled for, however, those who decided to adopt it for their purposes might next win accolades for deciding for one other creativity scholars see as 'more overtly "scientific"' than their main contender (the so-called 'metaphoric theories'); one whose 'underlying goal' is 'mapping the empirical reality of creative phenomena' while, at the same time, not losing sight of such 'traditional scientific standards' as 'a search for objective truth, generating empirically falsifiable hypotheses, and developing formal or computational models' (*ibid*., p. 474).[134] Again, if one were particularly apprehensive of borrowing a theory without knowing what it means in the donor discipline and 'how it is judged there' (Levin, 1993: 33), the article in question addresses such concerns well.

Importantly, too, the evaluation of the existing theories of creativity also takes into account their overall pragmatic orientation. Consequently, as Kozbelt continues to explain to the uninitiated reader, while some aim at 'understanding creativity as its own phenomenon', that is describing the phenomenon 'in a disinterested, "pure" scientific way, without any overt interest in the practical applications',

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[133] As one may infer on the basis of selected contributions on creativity in language, measuring creativity, impossible without having a clear view of what it is, has never been the primary concern of these authors: criteria on what is creative in language are well defined.

[134] As for the main allure of metaphoric theories, Kozbelt (2011b: 473) characterizes it as their ability to 'offer a more speculative stance focusing on provoking new understandings and possibilities and offering a moderating counterbalance to the sometimes stark empirical focus of scientific theories'.

others focus more on increasing creativity 'by identifying factors associated with its natural development' (p. 474). As such, those in the latter category will be of most interest to educationalists, on the premise that 'the goal of realizing creative potential is a major goal in education' (*ibid.*).[135]

Turning to the last criterion specified by my informants, being informed of research problems in the solving of which one could participate, Kozbelt's work does contain a few such possible research suggestions. In my opinion, linguists in particular might be attracted by what he says in connection with the so-called 'metaphoric theories', the language used by their creators is a potentially fruitful area of study in its own right.[136] And then, of course, one can reasonably assume that theories of this type will require a considerable extent of operationalizing, which can be done either by conducting conceptual research or by testing the applicability of key concepts proposed on large sets of specific, empirical data.

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[135] Similar brief characterizations of the theories discussed in terms of their suitability for those with highly specific research interests have been provided for other classes. For instance, scholars who are interested in how creative (including linguistically creative) individuals change the ways others think might, as well, take a closer look at theories focusing on persuasion. By the same token, those into how the environment in which we function affects the language we use, might follow the theories which focus on creative individuals, as it is within them that they find an account of the possible interactions between persons and environments and not, or not exclusively, an account of various personality traits that characterize creative individuals.

[136] Possible broad areas of interest being say, metaphor in scientific discourse, metaphor of creativity, metaphor of creativity as subject to social variation (e.g. do female scientists refer to creativity by means of the same metaphors as their male colleagues), to name just a few most obvious ones.

However, even this otherwise excellent piece of academic writing might benefit from a more judicious selection of examples with which Kozbelt decided to illustrate work in the ten major categories presented in the table at the beginning of this section. To illustrate, readers who need a theory which emphasizes the product and which concentrates on what happens at lower levels of creative eminence – as seems to be the case with 'economic theories'[137] – will certainly feel disappointed seeing that no reference to a specific theory has been made in the paragraph under the same title. And even though, a few lines later, the wording Kozbelt (2011b: 475) uses allows one to figure out that he is probably talking about Sternberg and Lubart's Investment Theory,[138] the

[137] Economic theories are described as ones whose 'macro-level quality [...] encompasses *all of the P's except process, and spans little-c to Big-C creativity*' (p. 475; emphasis mine).

[138] In the passage in question Kozbelt (2011b: 475; emphasis added) is talking about '*investments* in creative behavior, in particular that creativity can result *when a person buys low* (i.e., invests in an idea which is currently unpopular)', which those familiar with Sternberg and Lubart's Investment Theory will immediately associate with, for instance, an article titled 'An Investment Theory of Creativity and its Development', or another article by the same authors, whose title reads 'Investing in creativity' (Sternberg and Lubart, 1996). As for the examples of specific theories Kozbelt decided to cite, Wallas's model (given as an example of a stage theory, itself one of the so-called Stage and Componential Process Theories) has been presented as capable of accounting for various eminence levels (from mini- to Big-C), but its usefulness in explaining what some domain-specific scholarship seems interested in the most – the product – seems limited, as according to the description provided, it emphasizes the creative process over the remaining five P's. Also, a reference to Mednick (as an example of one classic cognitive theory or to the work by Finke, Smith and Ward (as another important contemporary view of creativity emphasizing ideas drawn from cognitive psychology) would probably not be missed

fact that he fails to include a single reference to it in his reference section means that only those who have come across it before will be able to guess to whose theory he is alluding. The omission detected is even more difficult to understand or justify (e.g. by pointing at space restrictions every work must observe) when one considers how much care Kozbelt took in order to explain to the uninitiated reader that in the case of theories of creativity, the focus on one of the six P's (e.g. the process) often means the theory in question will have little to say on the person or the product.[139] By the same token, an individual who carelessly chose a product-oriented theory hoping that the definitions provided will, after a little modification, also apply to the creative person or the creative processes should know that – as the research conducted within the past few decades clearly suggests – a product as such does not say much about either of them (Kozbelt, 2011b: 474). Finally, many outsiders to the field may feel disappointed

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if not there – after all, all cognitive theories, as Kozbelt points out, concentrate on, predominantly (and predictably), the process and the person and so do problem solving and expertise-based theories for which the work of Simon is given as an example. A reference to Simonton's Darwinian model as an example of evolutionary theories and, most importantly, 'a strong candidate for *the most comprehensive general theory of creativity*' (Kozbelt, 2011b: 475; emphasis added) will also be perceived as of little use: although all six P's are discussed here, we saw above that its overall aim is to account for the nature of genius and not the type of examples students of creativity in language collect and explain.

[139] It may be that Kozbelt is writing this thinking about all these readers who, having processed such key texts as Rhodes (1961), may have assumed that – since his original four P's are, in practice, difficult to keep apart – a work devoted to, predominantly, the creative process, will, in all likelihood, also contain a word or two on the remaining three aspects of creativity.

seeing that some of the key concepts discussed in connection with the theories of creativity have not been explained with sufficient precision,[140] which may be in line with the volumes general orientation, but unsatisfactory from the point of view of this group's highly specific needs.

Turning to other articles on the same topic in *EOC*, if one were to evaluate their contents solely in terms of their capability to inspire interdisciplinary collaboration, a few of them do contain passages that my target – students of creativity in language – might consider interesting. One of those that seem particularly deserving in this respect is Russ and Dillon (2011), for if one traced some of the statements it contains back to studies such as the one conducted by Zhu, Xu and Khot (2009), one would see that they may constitute a good research topic in their own right.[141] Another example is the article by Sternberg (2011),

[140] To illustrate, consider that while 'Big-C' creativity is defined (Kozbelt, 2011b: 474) as 'truly great, history-making instances of creative breakthroughs among eminent individuals', whereas 'little-c' and 'Pro-C' as 'a private minor insight or realization in an ordinary person' and the activities of 'professional creators who have not yet attained eminence, but who are well beyond little-c creators in knowledge, motivation, and performance' respectively, all that we learn about the notion of 'mini-c' is that it 'provides more room for subjective or personal instances of creativity'. Additionally, the fragment in which the concept ('mini-c') is discussed contains no reference to Kaufman and Beghetto's (2009) article – one in which it is elaborated upon. Consequently, one cannot be certain whether the reader would really be able to link the two together by analyzing the title of Kaufman and Beghetto's article alone. Again, one cannot escape the impression that Kozbelt at times assumes the article will be read by those in the know and well familiar with the latest developments within the field of generic creativity research.

[141] The statement in question is part of Russ and Dillon's (2011) discussion concerning the theory proposed by Mednick; the statement whose validity the three scholars decided to check holding that

one of the unresolved research problems specified being the current lack of 'any consensual definition of a domain' (p. 229). Familiar-sounding examples given to illustrate what is involved in this debate and including 'literature [...] German literature, or modern German literature, or modern German literature in its original language' do sound like an invitation at closer collaboration targeted at a limited scope of very specific research communities.[142]

On the other hand, when one has finally located these two suggestion-rich contributions to *EOC*, one must begin to wonder to what extent its otherwise very elaborate[143]

'combining of more remote elements is viewed as more creative than the combining of more similar items' (p. 66). Additionally, those familiar with the work of Kövecses, in particular his 2010 'series' on metaphorical creativity will be tempted to speculate that some of his context-induced metaphors are the product of serendipity – one of the three separate processes (serendipity, similarity and mediation) that, in Mednick's view, play a role in producing creative solutions (Russ and Dillon, 2011: 66). In turn, a passage in which Russ and Dillon discuss another key concept of Mednick's theory, 'an individual's associative hierarchy' (p. 67), may feel inclined to test whether, as maintained by Mednick, 'an individual who is new to the scene is more likely to be creative than someone who has been presented with the same problem many times before.'

[142] Another example of this type (potential collaboration areas) consists in postulating, albeit indirectly, more intense research on what Sternberg (2011) calls 'implicit' or 'folk' theories or conceptions of creativity (p. 226). Again, what Sternberg is 'discovering' here is that – a pattern well known to linguists – 'the naive pictures of the world obtained by the analysis of various ethnic languages may differ from one another, whereas the scientific picture of the world is not language dependent' (Burkhanov, 1998: 159), and since a study he himself has conducted probably encompasses English only, one immediately starts to wonder what other languages would also be encoding creativity by means of such predicates as 'is unorthodox'.

[143] This claim can be illustrated easily by analyzing various access paths available to someone who started with Kozbelt's article, in the

access structure facilitated finding them in the first place. What I mean is that the first page reference that this book's index entry reading 'Theories of creativity' features is to pages 473 to 479, which means that the first article many readers will go to is Kozbelt – the one we started with in the present section. Having processed this article, it is to be doubted whether someone looking for a 'product' theory would decide to use a reference to Mednick as a starting point of a more in-depth search. The reason for this is that Kozbelt (2011b: 475) characterizes Mednick as an example of 'classic cognitive theory'– and cognitive theories, as we saw in the table above, emphasize the process and the person aspects of creativity. And if this internal reference were to be ignored, the possibility of coming across Russ and Dillon's article would be none, as the only way for one to find it is either from an index entry reading 'Mednick, Sarnoff' or, reversely, one reading 'Associative theory of creativity' ('Associative Theory' is how Russ and Dillon's

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case of which one who processed it can now proceed along one of the three following search paths: (1) follow some name references (e.g. 'Mednick') provided within the article's body; (2) use the article's 'See also' section; (3) go back to the index entry reading 'Theories of Creativity'. As demonstrated above, this first strategy would result in located an index section reading 'Mednick, Sarnoff', which would, in turn, refer him or her to Russ and Dillon's (2011: 66–71) article titled 'Associative Theory', in which the theory of Mednick is discussed in more detail. In turn, Kozbelt's 'See also' section would suggest such related articles within the encyclopaedia's two volumes as 'Componential Models of Creativity', 'Enhancement of Creativity', 'Historical Conceptions of Creativity' or 'Implicit Theories'. Finally, by consulting the index entry reading 'Theories of Creativity' again, s/he would be referred to 'cognitive theories of creativity', 'theories of creativity encompassing intelligence', the 'Darwinian model of creativity', 'Wallas' four stage model/theory', 'systems theories of creativity', the 'Evolving systems Approach', 'approaches to creativity' and 'componential models of creativity'.

article is titled). Following the remaining page references placed at 'Theories of creativity' would not help either: the article in question is not among those this index entry refers to.[144]

The contributions analyzed while simulating searches for information on theories creativity have, up to this point, revealed similar deficiencies as those analyzed within the previous section. Accessing information may be difficult at times; repeating the same information – a feature one must be prepared for in collective works – or being presented with incomplete information that makes further searches necessary – would also be experienced in the case of this search item. If the next article consulted offers a better treatment of what some readers could classify as a deficiency of the previous one, the information needed to choose a theory which would best suit their own purposes may still be missing.[145] The individual authors' decision

[144] One more example illustrating the volumes' tendency to hide potentially valuable information in places which no one except for an insider would know to look at is the article by Sarsani (2011: 231–240). In this particular case, it is not external access that is a problem, but what happens in the article as such, some of the most important claims made within the theory in question are hidden in a section titled 'Computers and Creativity' (p. 236), which makes the information presented in the one called 'Boden's Impossibility Theory to Creativity' (p. 235) incomplete. As for external access, Sarsani's article (and, hence, Boden's theory, probably the most exact match for my target), one will locate it from the encyclopedia's entry reading 'Theories of Creativity', after following one of its last subentries called 'Approaches to Creativity'.

[145] To illustrate, consider that someone who started with Kozbelt's article might argue that insufficient care has been taken here in the selection of specific theories with which its author illustrates the work done in the ten broad categories he isolates. In the case of another article consulted (2011: 226–230), there is no such problem, as when its author, Sternberg, starts discussing the meaning of the term 'componential',

to settle for what sounds more like a popular rather than scientific treatment may be welcome by the lay reader, but shunned by many, more conservative individuals, for whom style is a concomitant of reliability.[146]

Concerning the second source under investigation, *HOC*, its index contains no entry reading 'Theories of Creativity'. As a result, in order to locate entries which may have something on this topic, one has no choice but to scan the entire index. The first entry retrieved in this way and reading 'Genetic Theory' would refer one to a chapter titled 'The Nature – Nurture Problem in Creativity'; the other two, reading 'Schema theories'

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the theories identified as such are next tagged with the names of such renowned creativity scholars as Amabile, Baer and Kaufman, Gruber, Csikszentmihalyi, Gardner, and, finally, the aforementioned Sternberg and Lubart. However, his discussion of the key concepts each theory employs has no information my target prioritizes, Amabile's theory characterized (p. 226) as one that conceptualizes creativity as 'the confluence of intrinsic motivation, domain-relevant knowledge and abilities, and creativity relevant skills', without informing the reader that the research by Amabile and her colleagues primarily targets individuals functioning within institutional settings. As argued in passing above, this information is something this particular addressee would certainly appreciate, as we know that it is often within such settings (e.g. a television station) that the language s/he studies appears. Without access to this information, however, our hypothetical addressee may feel more inclined towards, say, Csikszentmihalyi's systems approach, if only because it suggests that the continued production of such linguistic novelties depends on the field's evaluation of them, the field meaning here 'people who control or influence a domain', in our case for instance the station's owners.

[146] To illustrate, consider a statement reading that 'people rarely do truly creative work in an area unless they really love what they are doing' (Sternberg, 2011: 229) or that creativity typically 'means defying the crowd' (p. 228) – two excerpts that many researchers might associate more with the style of a popular magazine's article on enhancing creativity than 'academic' discourse, with all its rigors.

and 'Thurstone's multiple factor theory' to a chapter by Haensly and Reynolds titled 'Creativity and Intelligence'. As for other index entries containing the word *theory*, I am not sure whether those not familiar with the field would know to follow the one reading 'Theory of personality', the consequence of this being that some potentially valuable information would never be reached.[147]

Would the chapters located in this way prove of much use to our target? Starting with the chapter characterizing the so-called genetic theory of creativity, even though it would be difficult to find fault with its description as such,[148] the

[147] By classifying this information as 'potentially valuable', I mean that from the point of view of anyone interested in a general overview of theories of creativity, this development – research by personality theorists, which also included attempts to 'explain creativity in terms of comprehensive theories of personality'(Woodman and Schoenfeldt, 1989: 85) – is, historically, too significant to be ignored.

[148] As results from the description provided, the main assumption made by proponents of the genetic theory of creativity is that creativity is something we are born with, or inherit, just as we inherit other qualities. An argument that although the 'genes do indeed provide for the transmission of hereditary qualities, [...] they do not determine an individual's height, or intelligence, or creativity'; in other words, that 'they are predispositions, whose effects develop differently in different environments' (Vernon, 1989: 93) is given next, and followed with a reference to research stressing 'the part played by the social climate or Zeitgeist in the production of creative ideas' (*ibid*., p. 95). The most frequently raised research topics in this category include such factors as 'the occurrence of wars, political stability, civil disturbances, or the existence of many other persons working in the same field'; an overview followed with a listing of work (Barber and Hirsch [1962]; Blackwell [1969]; Brannigan [1981]; Cole and Cole [1973]; Merton [1968]; Simonton [1977]) in which these factors are being examined. Other important hypotheses that had been forwarded are next discussed, for instance that 'creativity or outstanding talent tends to "run" in families' (p. 103), alongside a word of caution, namely that such statements are 'almost impossible to justify, because such

information limiting the author's understanding of the term *creativity* to what happens at the highest levels of creative eminence could act as a possible deterrent. In the case of the remaining ones, none of the descriptions meets the criteria specified above and all research questions posed are clearly addressed at insiders only.

Summing up, the most general impression which suggests itself in connection with the material analyzed in both sources under investigation is its uneven quality, with some articles containing a lot of information the target might find useful and others unsuitable for anyone but an expert in the field represented by a contribution's author. Though this treatment is fully in line with the two volumes' overall design, its consequences for a specific reader expecting to have some specific questions answered are often negative and calling for similar changes as those hinted at in the case of the simulation conducted in section 3.2 above.

3.4 In search of information on organizational creativity

As demonstrated above, the two informants who were, at one point, considering creativity in language as their research topic, not only stated what information they prioritized; the explanations they provided also showed that, in many cases, the decisions they took had their origin in what I had been referring to as 'background texts' – texts that they had once processed and that, consequently,

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resemblance between relatives can be attributed either to common genes, or to environmental influences, or to both, and which have no method to decide which.'

affected their reasoning concerning the literature searches they would be conducting. In one of these background texts, Godzic (2004),[149] the reader is provided with a fairly detailed account of a birth of a then-new program which, despite the passage of time, still counts among the most popular evening news shows watched by millions of Polish viewers. And when one analyzes all details given by Godzic, one may well conclude that the most satisfactory description of what these individuals (and the television companies they worked for) did is that found in Prabhu (2011) – an article accessed with the help of a problem term that the two students formulated as 'Organizational creativity'.

As Prabhu explains to his readers, the individuals Godzic depicts in his work were lucky to find themselves in a company which was 'flexible, solution-oriented' and capable of 'adapting quickly to changing conditions' (Prabhu, 2011: 197) – features that guarantee the companies' survival 'during turbulent economic times'. Had it not been for this company's ability to constantly 'check their environment, pick up cues, and anticipate problems and opportunities', the producers of 'Fakty' would never consider doing this evening news show in a different way. This ability, which Prabhu terms as adaptability, is seen here as one of the situational predictors of future creative behaviour (including linguistically creative behaviour), whereas organizations which are not 'open to ways of changing routine and standardized job, in response to changes in the environment' (*ibid.*),

[149] The text referred to here is, technically speaking, one of the chapters of Godzic's book *Telewizja i jej gatunki po „Wielkim bracie"* (*Television and its Genres after 'Big Brother'*); the name of the program is 'Fakty' (Eng. 'The Facts').

will typically stifle the creativity of their employees.[150] An equally convincing explanation has been provided for why the producers of 'Wiadomości' ('Fakty's' main rival) behaved in almost completely the opposite way: as Prabhu points out, '[m]ost organizations' response to change is "reactive,"' that is they only take steps to adapt to those changes that have already occurred, which also fits the account Godzic provides his readers with.

This brief description Prabhu gives is followed with a summary of some of the work carried out with respect to individuals functioning within organizations (Prabhu, 2011: 198). These publications include the 2008 work by Zhou and Shalley, Amabile's componential model and Woodman, Sawyer and Griffin's 'interactionist model of creativity (which is an extension of the model developed by Richard Woodman and Lyle Schoenfeldt)', all to be consulted by scholars who look for the 'theoretical frameworks which have focused not only on the contextual factors and antecedents of creativity, but also on factors enhancing or constraining creativity at the individual, group, and organizational level' (*ibid.*). A brief summary of the results obtained by these scholars is also provided and presented in the form of a chart listing 'some of the key organizational factors' that are believed to affect the level of creativity of individuals who function within larger settings. A brief discussion of one of these factors confirms that Godzic's journalists enjoyed a considerable amount of on-the-job autonomy, were 'allowed to participate in deciding' (p. 199) on how to best attract new viewers and engaged in producing the show 'for the enjoyment,

[150] This means that these individuals may have been as creative as the 'Fakty' team, but forced to do their show the conventional way and use that type of language that 'good journalism' typically uses.

challenge, or personal satisfaction' (Amabile, 1999: 251, as cited by Prabhu, 2011: 200) and not because they were expecting some external rewards.[151] Finally, to be able to come up with all of these *ad hoc* linguistic creations they must have possessed an impressive array of skills and knowledge ordinary language users do not have.

The issue of skills and knowledge as an important component of linguistic creativity is also taken up in yet another article found at the respective index entry ('organizational creativity'), Parthasarathy, Doboli and Paulus (2011: 461ff.). In this article, to create means to have 'the ability to connect apparently unrelated concepts in a novel and useful way'[152] – a statement which not only explains the nature of these *ad hoc* creations produced live, but also new products such as 'Fakty', in which the elements of purely informative shows intermingle with what was formerly categorized as 'entertainment'.[153]

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[151] In Amabile's model, 'intrinsic motivation' is viewed as one of the most important predictors of creativity.

[152] As the article's authors explain, this process of combining elements which ordinary people see as unrelated, 'requires the same skills as divergent thinking'.

[153] On the account provided, while creating the show its producers went through a certain cycle, the description of which may also explain what happens in the case of written performance, i.e. when one has more time to go back and reflect upon what one has written, which also includes linguistic creations classified by linguists as exponents of creativity. The first phase of such a cycle consists in identifying an opportunity for a new product (e.g. a new formula for an evening news show). At the next stage, this opportunity must be evaluated in terms of 'its potential to be implemented and to lead to a successful enterprise' (Parthasarathy, Doboli and Paulus, 2011: 462). During the final implementation phase, 'necessary resources are gathered and a new [...] product [...] is created.' At all of these stages, important skills individuals in question would have to possess include the aforementioned ability to connect

Again, this is an account of creativity that sees it as involving somewhat more than just dazzling the viewer with forms that somehow defy the linguistic norm.

The article in question also contains an interesting evaluation of the linguistically creative behaviour of an individual functioning in an environment known for its linguistic conservatism. According to Parthasarathy, Doboli and Paulus (2011: 463), all sudden changes in such an individual's behaviour would not be possible had it not been for a considerable determination on this individual's part 'to challenge the status quo, defined as a desire to change the way things are done or to create something new.' Being part of a team is also discussed. Following this argumentation, we realize that if the term coined is an *ad-hoc* linguistic creation viewers may not understand without supporting visual materials, the journalist behind its creation is, from this moment on, left to other team members' ability to find him this material before the program is emitted. An additional difficulty observed in such contexts is that 'sometimes the diverse skills and interests required involve geographically distributed or virtual teams. These teams have to rely on the various media [...] to facilitate their collaborations' and what makes managing them effectively more difficult is that, as they continue, '[i]t is difficult to build the cohesion, trust, and the transactive memory (knowledge of who knows what in the group) required when group members are not collocated' (i.e. are not located in one place). This fragment also clearly points to

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concepts (e.g. information and entertainment) which had so far been treated as unrelated, as well as 'the ability to make rapid decisions in an uncertain and constrained environment' – an account ending with a list of personality characteristics required of all creators, namely 'tenacity, perseverance, self-efficacy, risk-propensity, [and] stress tolerance'.

many gaps in current knowledge concerning creativity in teams for, as the three argue, '[a]lthough there is a growing literature on innovative and entrepreneurial teams, much of this literature relies on surveys of team members and managers' (Parthasarathy, Doboli and Paulus, 2011: 463) – a factor that made some authors 'suggest that such reports may not always be accurate indicators of the processes and outcome related to innovation.'

Gaps in contemporary research concerning the role that collaboration plays in creativity is also one of the issues raised in yet another among *EOC's* articles, written by John-Steiner. The article starts with some general remarks on 'a growing importance of shared endeavors in our contemporary life' as a major factor responsible for 'a shift in point of view' on the part of creativity scholars who were, up to a certain point, 'used to studying human endeavors from the perspective of the individual' – a shift which is reflected in 'an increasing number of theories which focus on human connectedness and cooperation' (John-Steiner, 2011: 222). A definition of collaboration as 'a process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own' is cited next, and appended with the name of the scholar who proposed it, Schrage (1990). The author's attention next shifts to important studies on collaboration, in particular those that discuss four distinct patterns of collaboration. The first of those, as identified by 'John-Steiner and co-workers' (John-Steiner, 2011: 223), 'is the complimentary pattern in which expertise and disciplinary training, roles, and temperament are in complimentary relationship with each other' (which John-Steiner illustrates with

Pierre and Marie Curie, a case classified as 'disciplinary complementarity'). The three remaining modes include the 'integrative or transformative collaboration, illustrated with the partnership of Picasso and Braque, the essence of which is 'the desire to profoundly change existing scientific and artistic approaches into qualitatively new paradigms' and what the author terms distributive and family patterns; important work to become familiar with including Bennis and Biederman's study (1997) of what they themselves call the 'Great Groups' or Sawyer's (2003; 2007) studies of such 'improvisional groups [...] as jazz musicians, theatre groups, and conversational partners' (*ibid.*). The section also contains some comments on the patterns' frequency, with complimentary collaboration considered 'most widely practiced mode' – a statement which may, in my opinion, give rise to some future interdisciplinary research projects featuring linguists as one of the potential collaboration partners.

Another potentially interesting research suggestion that, as I assume, might raise the interest of my two informants concerns some methodological issues John-Steiner discusses in a section devoted to various methodological approaches that can be taken in the study of group creativity.[154] The most informative technique, according to this author, is a research design that would allow the observation of 'collaboration as it occurs in natural settings' (John-Steiner, 2011: 224). A particularly

[154] As mentioned in Chapter One, interdisciplinarity also entails the adoption of methodological and not just conceptual perspectives and as results from one of the background texts my informants pointed at, Williams and Chesterman (2001), one of the ways of producing 'something new' in science is by either improving the methods used by our predecessors of devising new, better ones.

good example of this type of study was Seddon (2004), who not only observed and videotaped his research population, but also conducted a retrospective interview: two strategies that allowed him to isolate both *verbal* and *non-verbal* (body language, eye-contact or gesticulation) aspects of the communicative event under investigation, a clear indication of a common sphere of interest. Other work discussed and giving the reader an idea of research in this category includes the studies by Sawyer (2003), de Castro and Grossman (1999) and Wuchty, Jones and Uzzi (2007), all discussed in terms of both the major findings produced and the investigative techniques used. Among the other ones mentioned, the 2005 study by John-Steiner, Mehan and Shank would probably prove of greatest interest to the addressee, as its aim was 'the examination of metaphors capturing the quality of the collaborative experience' (John-Steiner, 2011: 224).

Other research whose authors also rely on linguistic techniques of discourse analysis in examining the reconstruction of joint experiences' and 'looking at the length of utterances, sentence fragments, as well as joint productions where partners complete each other's utterances' is mentioned next, one of the findings being that 'the more highly integrated two collaborators are, the more they finish each other's' sentences' (John-Steiner, Mehan and Shank, 2005, as cited by John-Steiner, 2011: 224). These fairly specific suggestions for further research end on a note of a more general nature, namely that 'our detailed knowledge of the processes involved in effective joint endeavors is still limited' (John-Steiner, 2011: 226), in the consequence of which '[m]ore research that documents and analyses ongoing collaborative projects, rather than our current, primary reliance on retrospective

analyses, would provide the detail needed for a deeper understanding of this promising, and in many cases, essential activity.'

Another commendable feature of the article analyzed is that its author does take cognizance of alternative research attempts. To illustrate, although '[m]ost theories in the human sciences address individual development' and '[t]o date, the role of collaboration in human development has hardly been explored' (*ibid*., p. 225), important exceptions (i.e. theories in the human sciences that do not limit themselves to individual development) to this can also be named'. Among those John-Steiner lists on pages 224–225, one finds the 'cultural historical theory in which thinking is viewed as rooted in social practice' and which is 'based on L. S. Vygotsky's theories', the theoretical approach of Howard Gardner, who claimed that 'the uncertainty of early explorations "in unchartered waters" requires intellectual (or artistic) and affective support', or the approach 'proposed by the sociologist Michael Farell', as well as the work of Gray (1989), which has 'also contributed to the theoretical and applied literature on collaboration.'

As results from the summary of these articles' contents, both the characteristics of what happens when creativity is observed in organizational settings as well as a treatment of research areas in which further research (including collaborative research) seems necessary can be pronounced as adequate form the point of view of my target's priorities. Important terminological distinctions these and other authors have introduced should facilitate further searches through the creativity literature.[155] The problems that the

[155] One of these includes a distinction between creativity and innovation as an immanent feature of many works concerned with individuals functioning within institutionalized settings. On such

reader would have to cope with (processing large amounts of repetitive material, incomplete information, information prioritizing other readership) are largely absent in the case of this problem term.

Would the same results have been obtained for searches conducted by individuals who decided to look the information up starting with a more general 'environment' as the problem term? I may be wrong but I somehow find it difficult to imagine a linguist interested in studying creativity in connection with what is one of the central concepts presented in Cohen's article, creative adaptation,[156] or further explore ideas presented in such

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a view, as Cropley (2011a: 363) informs, generic creativity scholars often think of creativity as only 'a prerequisite for innovation', which, in turn, 'requires not only creating novelty, but also putting it into practice in a particular setting. [...] Innovation requires *the deliberate introduction of ideas, products* [...], and the like, that are novel for a work group or an organization into which they are introduced' – one of the consequences of this being that what linguists encode as creativity, others may be referring to as innovations, and the activity of producing and implementing them as linguistic innovativeness rather than creativity. Another term that the same author introduces is '"inventive" creativity' (also dubbed 'minor or secondary creativity'), to be used by those researchers who know that the linguistically creative behaviour on the part of a specific individual is basically a repetition of what has been 'standard practice at a former place of work' (Cropley, 2011a: 364). As for ideas that are 'novel in an absolute sense', these deserve to be termed '"innovative"' or "emergent" creativity' (*ibid.*), and their subjective evaluation might also vary.

[156] In a sense, this article can be treated as complimentary with respect to what the reader would find in Prabhu, creative individuals described as those who 'must make major transformations to their own cognitive structures while remaining resilient in the face of the inevitable attacks that accompany creative work.' This, as Cohen (2011: 17) continues, 'requires creative balancing of self in the environment, "reading" the cultural and contextual requirements and demonstrating adaptiveness as well as developing original ideas.' While doing this, one must also

otherwise excellent articles as Piirto.[157] I am also quite sure that not all theories referred to within the respective articles would evoke the interest of those wishing to learn more about the effect the environment has on adult creativity.[158] Consequently, although the articles reached

keep in mind that the distance between the world and the creative product can be neither too great nor too small, as, in the first case, 'the world' is unlikely to recognize the value of one's ideas, whereas in the second case merely adapting will not result in highly creative work. Both these two as well as other paradoxes reported are resolved with the help of the Continuum of Adaptive Creative Behaviours – a model which sees creativity 'as a range of adaptive behaviours along a continuum of seven developmental levels' (Cohen, 2011: 15). Importantly for the reader, statements such as those cited above apply to all levels of creative eminence.

[157] In the article in question, the environment in which one is functioning is portrayed as an important part of a model called Piirto's Pyramid of Talent Development (Piirto, 2011). The Pyramid itself is first presented as 'a framework for discussing the creative person' in several domains (p. 429) and even though one of these is 'creative writing', it seems that Piirto's work has mainly concerned such environmental factors as 'a child's being (1) in a positive and nurturing home environment and (2) in a community and culture that conveys values compatible with the educational institution, and that provides support for the home and the school' (Piirto, 2011: 430). As for the concomitants of creativity a linguist would be exploring in connection with her work, these include having a history of 'predictive behavior of extensive early reading', such individuals' 'early publication and interest in writing' (p. 432), or having often felt marginalized, which resulted in a strong 'need to have their group's story told' – again, issues linguists seem to care little about.

[158] A good case in point would be those targeting what happens at the earlier stages of a creator's life. We find an example of one such theory in Kohanyi (2011: 506), who characterizes Rogers' Theory of Creative *Environment* as one according to which 'the most central element to the development of creativity is for a child to receive unconditional positive regard from his/her family'. Other work mentioned by this article's author that could be rejected on the same grounds include

in this way contain quite a significant number of references to areas characterized by the paucity of research, these calls to 'further research' do not constitute a good match for what my target is after.[159] As a result, the overall impression with which s/he would be ending a search which took 'environment' as a starting point would

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Gardener (1993), Goertzel and Goertzel (1962), Goertzel et al. (1978) and Sulloway (1996), all being described as concerned, first and foremost, with establishing how family environments can be either conducive or detrimental to creativity, an overview of factors examined containing a reference to such familiar topics as the style of child raising, the family's socioeconomic status, the parent's level of education, birth order (with family size and age and sex differences perceived to be the mediating factors), stress resulting from being raised in a troubled family environment (the frequent forms of family trauma including alcoholism, mental illness, single parenthood, or conflict between parents) or, bi- and multilingualism and bi- and multiculturalism (both found to stimulate creativity) – all demonstrated, within Chapter Two, as of little relevance from the point of view of specific research interests of our target.

[159] In fact, the only article that meets this criterion is Harrington's 'Creative Environments, Conditions and Settings', most notably, the author's attempt to develop a conceptual framework for 'studying the multi-layered environments within which autonomously creative people function' (Harrington, 2011: 264), which those familiar with Kövecses' work on context-induced metaphors might be interested in adopting. Environments are here (Harrinton, 2011: 265) analyzed in terms of their capacity to provide creatively inclined individuals with what the author calls 'the creative seeds' which may come 'in the form of [...] images, sounds, objects', which, basically, corresponds with those elements of the outside world Kövecses identifies as the source of new metaphors his targets create. What also makes this contribution interesting is the framework's suitability for explaining the activities of 'autonomously creative people' and not exclusively 'the creative activities of people working within an organization' (Harrington, 2011: 264) – an area which, as the scholar asserts, is 'much less developed' than the study of environments that support (or hamper) creativity in institutional settings.

probably be less positive than in the case of a search for anything on 'organizational creativity' summarized above.

Turning to information on individuals functioning within larger environments contained in the second source under analysis, *HOC*, its index has no entry reading 'organizational creativity'.[160] As for the one reading 'Environment', it would refer one to 'Situational factors' – an entry which contains a further reference to 'Work environment', specific information located in this manner including, for instance, a brief historical overview of the main developments in the area in question,[161] information about the first studies carried out along these lines,[162] research specifically devoted to creativity and innovation

[160] Other problems with *HOC's* index is its incomprehensiveness in the sense that not all information presented in individual chapters has been referred to from the index. To illustrate, consider the chapter by Haensly and Reynolds (1989), in which Wade (1968) is cited on page 126 as one 'who speculated on the role of environment in fostering the child's creativity'. However, *HOC's* index has no reference to this page either at 'situational factors' or 'social and environmental factors'.

[161] Discussed in Woodman and Schoenfeldt (1989: 79), who note that, up to a certain point, little emphasis was laid on the so-called 'external determinants' of creativity, especially within the psychological research on this phenomenon. Some attempts to rectify this omission made within a research strand called 'the social psychology of creativity' that Woodman and Schoenfeldt describe as one that 'seeks to understand and explain how particular social and environmental conditions might influence the creative behavior of individuals' are mentioned, the major reservation being, however, that it 'is probably theoretically less well developed than either the personality or cognitive style perspectives' (*ibid.*).

[162] Also included in the chapter by Woodman and Schoenfeldt (1989) in which the work by Getzels and Jackson (1961), Goyal (1973), Hare (1982), Klein (1975) and Torrance (1965) is identified as the first studies that recognized the important role of social interaction in creativity.

in organizations,[163] the populations studied[164] and, finally, the topics taken up and/or the main findings obtained.

Could the presentations analyzed be pronounced an inspiration for my target? In my opinion, one of the factors suggesting the contrary is the amount of attention devoted to such external elements that have a detrimental effect on creativity. Though undoubtedly of great importance for other creativity scholars and the society, speculations concerning what one's creative productivity would look like had it not been for negative factors isolated within this area of research practice[165] is

[163] Notably the work of Amabile (1983 a and b), Staw (1984), Steiner (1965), Woodman (1983) and Ekvall and Tangeberg-Andersson (1986), all mentioned in Woodman and Schoenfeldt. This last study is also important in the sense that using it in illustration of work in the area in question confirms that some organizational research did target identical work environments as those linguists describe (in this case the working environment of a Swedish national daily newspaper) and not only businesses *per se*.

[164] In addition to information included in Woodman and Schoenfeldt and pertaining to the research population targeted by Ekvall and Tangeberg-Andersson's study (1986), a reference to the 'who' of studies in the field is also provided in Brown (1989). In the chapter in question, a study by Getzels and Csikszentmihalyi (1976) is characterized as one in which artists were observed (Brown, 1989: 22), while Feldman (1980 and 1986) is described as one which concerned itself with the role mentors play 'in the development of prodigies'.

[165] Among those discussed in Martindale (1989: 218), one finds, for instance, 'stress [...] mere presence of other people [...] noise [...] extremes of temperature [...] and even reward', all isolated on the basis of Dentler and Mackler (1964), Lindgren and Lindgren (1965), Martindale and Greenough (1973), Lombroso (1901) and Amabile (1983a). Two hundred pages later, one is informed of yet another deterrent: deadlines, with the lack of 'a mental time-management system' (Britton and Glynn, 1989: 430) as a possible explanation on why creative individuals are such an easy prey for environmental control of any sort, deadlines included

probably the last thing linguists would feel inclined to engage in. In the case of the theories of creativity touched upon by these authors, their discussions do not meet all of the criteria my two informants specified.[166] Finally, as regards excerpts which they could potentially treat as an invitation to collaborate,[167] the majority of the research

(in Martindale's case, the explanation provided on page 227 concerns the disinhibition many of them display). As for other works analyzed, lessened creativity observed in those environments that do not approve of creative behavior may be treated as indicative of how intelligent the individuals concerned are (Haensly and Reynolds, 1989: 112, as based on Estes, 1985), whereas authors such as Crutchfield (1962), Naroll *et al.* (1971), Rogers (1954), Simonton (1975; 1984) and Zuckerman (1977) are cited (Brown, 1989: 227; Martindale, 1989: 227) to illustrate work carried out with a view of isolating anything (e.g. wealth, birth order, the availability of role models to imitate or compete with) that seems positively correlated with creativity.

[166] Exceptions to this can be found, however, with a good case in point being the discussion we find in Brown, who assesses Guilford's Structure of Intellect model as not particularly useful for explaining this particular 'P', one of its central tenets being that the traits that 'are characteristic of creative persons' (Guilford, 1950: 444, as cited in Brown, 1989: 13) 'operate broadly across situations' (Brown, 1989: 14). Reversely, Amabile's theory is referred to as 'possibly the most comprehensive social psychological explanations for creative behavior' (Woodman and Schoenfeldt, 1989: 81). The brief descriptions of the model provided in this, as well as other chapters such as Brown, confirm that adopting the theory would help one explain why two individuals working in two different settings (e.g. two different television stations) produce at different levels. In view of this theory, also presented in such more recent works as Amabile (2012), concluding that one of these two individuals was more creative than the other one is a simplification, as further research might demonstrate that such differences were the outcome of 'norms of harshly criticizing new ideas, political problems within the organization; an emphasis on the status quo; a conservative, low-risk attitude among top management; and excessive time pressure' (Amabile, 2012: 3) and not individual abilities.

[167] The two cases in point being Brown (1989: 24), according to whom the findings obtained by Getzels and Csikszentmihalyi 'may not apply

problems specified is clearly beyond the competence of anyone but the insiders.

3.5 Results and discussion

The first, most general observation made in connection with the three simulations conducted is that if my two informants did decide to look up the three problem terms in the two texts they nominated as a likely choice, success would depend on which of these two would be consulted. If the text chosen were a specialist-oriented volume such as *HOC*, the searches conducted next could not be, with the advantage of hindsight, assessed as entirely satisfying. Such specialist-oriented volumes clearly, and understandably, prioritize information insiders to a field want to receive,[168] and typically encode this information in a way that often makes it inaccessible for anyone but the insider. The fragments in which calls for further research on the issues addressed can be found are often written in

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to truly great artists' or Britton and Glynn (1989: 430), who note that '[l]iterature on the relationship between creativity and time-management does not appear to exist.'

[168] This volume's specialist orientation is announced in its prefatory matter. As its editors stress, discussions they had with their colleagues revealed a deep dissatisfaction with 'the state of research on creativity' (Glover, Ronning and Reynolds, 1989: xi), with issues such as 'the scientific utility of the global concept of creativity' or the 'currently available measures of creativity' receiving less attention than they seem to deserve. The volume planned was to avert the negative trends detected by, firstly, providing 'intellectual leadership or, alternatively, [...] providing a target for researchers who wished to throw intellectual rocks at somebody' – two aims the achievement of which should in future lead to '"progressive" rather than "degenerating" research programs'.

such a way that outsiders immediately realize they are not qualified to help; if they were, further, time-consuming literature searches would be required for them to be in a position to determine what specifically they would have to do, i.e. what their help should entail.

Texts additionally addressed at lay readers seem a better choice for someone entirely new to a field, but in the case of the one analyzed, there was still plenty of room for improvement. If we were to figure out what this volume's editors' priorities were on the basis of the information contained in its preface, we would probably conclude that they were aiming for as comprehensive as possible an update on all developments that had taken place in creativity research since the publication of the first edition of the encyclopaedia. And, with research conducted with intensity, the amount of new information to be disseminated must have been tremendous.

Needless to say, being researchers themselves, the contributors to the volume in question knew this information would lead to action as a final result. Experienced scholars who themselves have a record of borrowing concepts/methodologies from other fields know perfectly well that the collaborative projects they themselves engaged in depended to a considerable extent on what we can provisionally term as a text's informative value – its ability to serve in the capability of a reliable research guide. The texts they contributed to the encyclopaedia met this criterion. The problem is that while providing guidance of this type, many of the encyclopaedia's authors may have been unconsciously thinking about (and writing for) those like themselves: fellow researchers knowing a lot about the field and with considerable experience in doing research. If this book's

primary audience were novice researchers and if it was intended to serve as a basis for, say, seminar discussion, information concerning the field's scope, its main ideas and concepts would have to constitute the background, the foreground being reserved for a quick *overview of the field's main contending issues or questions still waiting to be solved*. Special provisions would also have to be made for the fact that the book's audience are not only new to the field, but to research in general.

Being an outsider to the field of creativity myself, I of course do not have sufficient expertise to provide detailed suggestions on what such an introductory-level account of this field, written primarily with such a goal in mind (*researching* creativity) should contain. At the same time, when I imagine such a book's authors in my informants' place, I guess they would agree that novice researchers would, in the first place, hope for a volume of a relatively modest length. Even with a field of that scope, an orientation volume informing of the main ideas and concepts developed within the field should take no longer than somewhere in the region of two hundred pages and if such a volume's authors were willing to consider how many problems they themselves had with managing their time wisely,[169] they would probably agree that a volume of that length, the processing of which would take a few days at the maximum, would be all that is needed at a stage when one is only considering a specific area of research,

[169] Note that this fact is often taken into account by such introductory-level texts as Williams and Chesterman (2001), which offer separate sections on the issue, reminding their audience of the necessity to 'work out at the onset the actual amount of time' (p. 38) they will be able to devote to their projects, in addition to practical suggestions that should help them meet the deadlines set.

still unsure if this is, indeed, the topic to which they would like to devote their time.

Regarding the volume's internal structure and contents and drawing on what I myself learned about the field, I imagine that such a volume might begin with a brief commentary concerning all these contexts (e.g. the arts, the sciences) in which creativity can be observed, as it is this 'practice' that the audience can relate to. A movement to 'theory' should follow, consisting in informing the reader of the name of the field that studies creativity. An overview of the field's major subdivisions (research into the six P's of creativity) should be provided next, a presentation of what each of these six subdivisions deals with reduced to a minimum. If one decided to emulate what we find in such review articles as Runco (2004), an overview of various disciplinary emphases – the 'who' of creativity research – would have to come next. However, by contrast with what such publications typically contain, the audience would also have to be informed of various subjects domains (music, linguistics) in which the focus is on specific manifestations of creativity – domain-specific creativity research, as we called it here. The mutual relation between the two should be described next, so that the outsiders (including those involved in domain-specific research) can form preliminary hypotheses concerning the nature of their eventual contributions to what the 'theorists' are trying to achieve, i.e. what is expected from them, and when we analyze such background texts as Lyons (1981), we immediately see that this can be done successfully within a relatively small space.

Finally, this panoramic view of the field, accommodated within the first chapter of the proposed volume, could also be appended with a brief account of research conducted in various parts of the globe and a section presenting a brief

history of the field. Readers to this first section would, in this way, be given an opportunity to see how intense creativity research has been in those regions in which they themselves operate, whereas information contained in the latter part would allow them to form preliminary conclusions on how well established the field is. In my opinion, both pieces of information might, if not lead to collaboration, than at least facilitate the decision to take up the challenge of interdisciplinarity, as some readers may be intuitively looking for confirmation that in spite of the intensity with which research in this area is conducted, the 'map' has many blank spaces that are still waiting to be occupied.

All of the issues mentioned above could next be given a more detailed treatment in the subsequent chapters of the volume. This would mean a separate chapter summarizing research into the creative product, to be followed with a separate chapter summarizing research on the person of the creator, and so on. Within each of these, the major perspectives taken within the research strand in question would have to be characterized, appended, each time, with an inventory of questions that scholars representing each of these perspectives have not managed to answer. Works that have not made it into the main text, but a must for those who would, at that moment, consider themselves ready to take up the challenge of interdisciplinarity would have to be discussed in the so-called close-set matter (in this case the footnotes) and/or an annotated 'Further Reading' sections at the end of the chapter.

Were one of the sections of such a volume to contain a discussion of what my two informants specified they would be after at one point, definitions of creativity, such a section would probably have to begin with the most common definition of creativity agreed on by most

creativity scholars, to be followed with a discussion of such debatable issues as whether this definition can be used with respect to all creativity or rather, as some maintain, the most eminent cases only. A detailed discussion of specialist senses words given as attributes of creativity have acquired among creativity scholars and of important modifications these senses may undergo depending on which aspect of creativity they are supposed to account for could come next. As for defining strategies such as those briefly hinted at in 3.2, I already postulated they should never be used on their own. Alternate ways of defining, in particular those definitions that would enable the volume's audience to broaden their own research into creativity by cases often neglected by their own colleagues should also be presented.[170] Finally, a brief presentation of various synonyms of novelty and value the reader may come across in the future could be made.[171]

Had all this material been presented in such a condensed form, the reader would not have to process the same

[170] Not being a creativity researcher myself, I am probably not well qualified to speak on behalf of the entire group, but having processed some of the work on creativity in language I think many linguists might settle for a fairly inconspicuous definition I found in Donohue (2011: 497). This definition sees creativity as a process 'involving the discovery of new ideas or concepts' – a way of defining which, in my opinion, clearly states that it is the novelty of an idea and not the novelty of form (concentrated on in many discussions on creativity in language) that counts, in the consequence of which all 'old' words with new readings coerced by the context can be pronounced manifestations of (linguistic) creativity.

[171] In forwarding this specific suggestion I am, in fact, drawing on the best article on the issue I managed to find, Runco and Jaeger (2012). Although it postdates the publication of *EOC* by one year, its contents confirm that many insiders to the field have noticed this problem and it is actually a pity none of the articles the reader would be referred to from its 'definitions of creativity' discusses it at more length.

information again and again, as is typically the case with collective works. Importantly, too, those not familiar with the field would be spared forming conclusions that other texts encountered on later occasions would make them revise as unfounded – a risk particularly strong in the case of those whose experience in doing research is still minimal and whom we can often observe in action, mistaken assumptions a norm and not an exception. In cases in which repetition would be hard to avoid,[172] the text to be processed would consist of a few sentences or a paragraph and not twenty or more separate articles, in which the information the reader prioritizes often appears apropos what is this article's major focus.

A volume whose editors would make *researching* creativity their number one priority would also have to consider that absolute newcomers to a field may, and often do, begin their searches under colloquial terms. As the analysis has shown, the editors of *EOC* seemed well aware of this fact, correctly predicting that for many of them, a search for anything on 'organizational creativity' will commence at 'companies' or perhaps 'business'.[173] In

[172] To illustrate what such cases can consist in, consider that many subentries of *EOC's* 'definitions of creativity' lead to the same information. For instance, a reader who has just read the fragment referred to from a subentry reading 'Runco's definition', will realize that this is actually an alternative naming given to the so-called 'parsimonious definition', whereas a 'unified definition' takes into account some domain specific differences present in what the insider knows as 'Cropley's definition'. In spite of the disadvantage pointed at above, this strategy of having all these alternative terms as autonomous index entries guarantees that the information the readers need has been encoded under the name they remember.

[173] As we remember, this is where journalists (one of the main targets in works on creativity in language they processed) typically work – broadcasting companies, the latter defined in standard dictionaries as 'commercial business'. The editors of *EOC* seem well aware of this,

many other cases, however, information my two informants might be interested in and that could, in my opinion, inspire collaboration, was hidden. A few pertinent examples were provided in the three analytical sections above, but many more could be cited with ease.[174] This is actually a pity and especially difficult to understand when one considers that some of the contributors to the volume in question seem well aware of how important interdisciplinary collaboration is in the case of this particular research topic.[175] Apparently,

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'business' being one of the index entries from which the audience is referred to 'organizational creativity'.

[174] To illustrate, one may cite from an article authored by Mumford and Vessey (2011), in the case of which we find a reference to the mysterious 'Mumford and colleagues', without a date, as a consequence of which we do not know whether the publication meant in this fragment is Mumford, Baugham, Supinsky and Maher (1996), Mumford, Baugham, Threlfall, Supinsky and Constanza (1996), Mumford, Mobley, Uhlman, Reiter-Palmon and Doares (1991) or, finally, Mumford, Supinsky, Threlfall, and Baugham (1996). Similar carelessness has been observed with respect to research reported in the sections that precede (pp. 602–605), as none of the studies discussed there have been identified by the researcher's name. Similarly, in an article referred to from an index entry reading 'cultural definitions', Fryer and Fryer-Bolingbroke (2011), its 'Further Reading' section fails to provide any details on what a linguist might see as one this article's key references, Kwaśniewska. As in the case of the previous article discussed, Mumford and Vessey, the authors of this one may have assumed that the insiders will know, whereas lay readers will not care. The needs of fellow creativity researchers originating in other fields have, however, been ignored.

[175] Here I mainly mean this section of the 'Preface' in which Runco and Pritzker (2011: xxi) complain that it is still a sad norm for creativity scholars to work in isolation from one another. Other contributors to the *Encyclopaedia* have made similar calls; for instance in one of the texts my two informants analyzed during their own quest into the field, Sternberg *et al.* (2005), we are referred to a study by Wehner, Csikszentmihalyi and Magyari-Beck (1991) as a proof that this tendency to stay within the limiting confines of a discipline one originally recruits from is all but a relatively recent trend in creativity research.

increasing the level of collaborative readiness – a collective goal this research community is often talking about – had, occasionally, to be compromised for reasons of capacity (or clarity).

Another suggestion that I assume the editors of such a single, introductory-level volume addressed at those new to the field (and new to research) might want to consider is shifting some of the information on the field's contending issues into a separate chapter. First, from the examination of our data it seems evident that with a field of that scope, most of the thematic chapters' space would be taken up by a presentation of issues that would constitute these chapters' major themes. Consequently, little space would be left for a comprehensive presentation of *all* unanswered questions on which outside collaboration would be needed and possible. Second, were future research to confirm that collaboration would be more likely to occur if some of these questions were appended with information my two informants claimed they prioritized ('reassure us that this is an *important* problem'; 'show us precisely *who* this call is addressed at'; 'tell us *what precisely you want from us*'), it seems evident that this can only be done within special space that has been set aside for this purpose only. Finally, some members of the audience might already be more or less familiar with major work conducted within a particular research strand. For such readers, a bare listing of additional unsolved questions they could help on, and accommodated within a chapter devoted specifically to issues that had, so far, been neglected in the literature on creativity might be all they would be hoping for.[176]

[176] Conversely, those who would find one of the questions particularly interesting, but needed a brief update on the context in which it had been posed, could go back to that section of the book in which this context is presented in a more detailed manner.

The next suggestion that would, in my view, be worth considering entails having yet another separate chapter in which the volume's audience – that we characterized as those new to the field and, simultaneously, new to research as such – could read a fairly detailed description of a few exemplary studies conducted in connection with issues addressed in each of the volume's thematic chapters. From the analysis conducted in Chapter Two it seems evident that the studies presented in such a chapter should have wide-ranging implications across the subject fields in which creativity is studied (e.g. linguistics) – as we remember, one of the problems my two informants identified was being unable to work out how 'all this' applies to what linguists do. Age or birth order as related to creativity may be a fascinating research topic to explore, but when suggesting it to a linguist, it must be formulated in such a way that s/he can explore it without having to fear that the study conducted will next be criticized as too far removed from work conducted within these specific disciplinary boundaries.

In selecting such sample work, special attention would also have to go to the methods the authors of these studies had used, as referring a novice researcher to a study whose methodology would be difficult to emulate would probably be as counterproductive as referring them to one in the course of which they would have to renounce some important part of their disciplinary identity.

When I asked my two informants for their opinion on this last idea, they not only agreed, but also suggested that such a description should, optimally, *consist of two parts*. In the first part, a study whose design they might, in future, emulate, could be described in point form – a time-saving strategy that would allow them to assess at a glance

whether the topic raised was something with which they identified. This brief description should be followed by what they referred to as *'normal' text in which the study's background and context, its aims and outcomes, its methodology and, finally, its limitations could be described in more detail*. A very detailed rationale has been provided for some of these components: for instance, *those who come next often treat a study's limitation as a starting point for their own work*. Concerning the other terms they used, 'background' was *all conditions that made someone chose this specific topic*, whereas by 'context' they meant a specific research strand the work represented. As this discussion revealed, methodology was, in general, one of their biggest concerns, so serious that they soon started talking of *yet another separate chapter devoted to methods used in creativity research*. As they argued, when *one is still relatively inexperienced, one 'in theory' knows what all these methods are and is familiar (more or less) with how, say, cross-sectional research differs from, say, longitudinal research, or what a questionnaire survey is*. This notwithstanding, *one nevertheless always wants to see these methods discussed in the context of this area of research practice in which one intends to work*. To put things differently, if one really wanted to act on this specific suggestion, the chapter in question would have to feature a few separate sections titled, say, 'longitudinal studies in creativity research' or 'case studies in creativity research', to name just a few. If some of this information (e.g. information on main types of longitudinal designs that could be used in this context) could not be given for reasons of space, the reader would have to be referred to works in which it could be found.

Needless to say, this chapter containing an *overview of methods used in creativity research would have to encompass methods available to all creativity scholars (including those into its specific manifestations), and not just those methods that are in regular use within the research community the text author belongs to*. As these two individuals repeated,[177] those creativity researchers who themselves represent various subdivisions of psychology, probably do not mind their colleagues' lengthy arguments on the quality criteria employed by themselves or other authors. The 'background texts' they had themselves read explained to them very carefully why they are. But these texts also confirmed that scholars who (like themselves) are not used to working in the quantitative paradigm, may 'deny the relevance of "validity" and "reliability" as defined in quantitative terms' (Dörnyei, 2007: 49). What is more, since 'the scope of possible quality criteria is rather wide – ranging from statistical and methodological issues through real world significance and practical values to the benefits to the research participants' (*ibid.*), representatives of these various research traditions will probably never see why they should place that much importance to issues they themselves not associate with quality.

In sum, as the analysis conducted within this chapter suggests, academic texts young researchers may choose in order to find something specific may be those written for a slightly different audience. Had my two informants

[177] I said 'repeated' since this reservation has already been raised during the first stage of their study. As regards the fragment to which I am alluding to a few lines later, the explanation this author (Dörnyei, 2007: 49) provides is that 'given the huge importance of research quality', it only seems natural for one to 'emphasize quality parameters that will allow the type of inquiry they pursue to come out in a good light.'

processed these two texts themselves, they would have discovered that not all information they claimed they would prioritize would be there. If there, it would, at times, be difficult to access, or difficult to understand by anyone but the volume's primary audience. Given these may affect one's level of collaborative readiness, it only seems natural to expect that texts produced within research communities in which a texts' capability to inspire collaboration is considered important will place their potential collaborators' needs before anything else and that their main focus will be on researching the topic and on areas in which outside help would be needed.

If this obvious fact is taken into consideration, predicting the priorities of an audience who would like to take up the challenge of interdisciplinarity should not be that difficult. As demonstrated above, such needs are partly a function of the relation between the two fields. Although it is beyond the project's scope to comment on the decisions my two informants took, I do understand the rationale they gave while explaining why an absolute newcomer to a given 'parent' field would like to be informed about a theory's scope, as well as be told how the theory presented is viewed within the field, i.e. by experts they themselves were not.

As also demonstrated above, authors who wish to produce a text which places collaboration high on the agenda should also give some thought to such external factors as the reader's professional status (one of the elements to be considered in this context being the reality in which they work[178]), the knowledge they can (or cannot)

[178] Meaning, in our context, how pressed for time one is, but an analysis of other national milieus might confirm other factors may be equally important, including the 'publish or perish' dictum that, as both of my informants claimed, young scholars are continually reminded of (the effects often being counterproductive).

be expected to possess or factors that we can provisionally subsume under the collective term 'loyalty issues'. Young, relatively inexperienced researches do have this strong tendency to emulate what those within their community of origin do (or don't do). If they discover other seasoned scholars never reach out, why should they?[179]

The literature on interdisciplinarity confirms this, consistently showing that if all these possible differences in affiliation, experience and socio-cultural history are not addressed, collaboration may be at peril. As for the priorities that my informants had identified, future research will tell if all scholars wishing to take up the challenge of interdisciplinarity would choose the same ones or perhaps name some that did not surface up within this project.

Summary of Chapter Three

My central aim in Chapter Two was to examine the texts once read by two young scholars with a view of determining whether the topics raised within the research

[179] This tendency to emulate was one of the factors responsible for the 'nothing in there for us' verdict my two informants' reached during the preliminary phase of their research. As they could observe in connection with one of the background texts they read, Belluigi (2013), educationalists (which is how they classified this text's author) often cited the work by generics, the reference list of this article including, for instance, Amabile (1996), Boden (1994), Getzels (1980), Runco (1994), Sternberg and Lubart (1999) but, predominantly, as she (Belluigi, 2013: 3) stresses, 'the systems approach of Mihaly Csikszentmihalyi' (i.e. Csikszentmihalyi 1990a, 1990b or 1996). By contrast, scholars *they* identified with, students of creativity in language, never did – an observation that made them conclude that what generics are after does not 'apply', at least not here.

community in question really have that little in common with what seemed of greatest interest for those they started identifying with. The effect they were talking about has partly been investigated before, research conducted along these lines showing that text comprehension and topic interest are highly correlated. When these two individuals ventured over, something similar happened, their interest in the topics discussed falling steadily as they proceeded. In Chapter Three, I decided to go one step further, assuming this time that the literature produced within what these two considered the 'parent' discipline could, in theory, have also been scanned with a view of finding something specific: answers to specific research question or questions that might pop up in the midst of their own research.

The chapter started with a brief presentation of its conceptual and methodological underpinnings, followed with a brief description of the two sources in which these hypothetical searches would be conducted and a justification of why it has been these two texts that I had chosen for this part of my analysis. Next, the reader was presented with the results of three quests into the writings produced within the parent discipline. The first of them, a search for definitions of creativity was simulated in section 3.2, whereas the remaining two, a search conducted with a view of finding more on theories of creativity and a search that would provide an adequate explanation of linguistically creative behaviour of individuals who create while part of an institutional setting in sections 3.3 and 3.4.

As clearly results from the analysis conducted in Chapter Two, the three 'problem terms' that my two informants formulated are, of course, not the only ones under which these searches could be conducted. Indeed, considering

what linguists (at least those linguists whose work my two informants had read) set their eyes on, I can well imagine them wishing to learn more about adult creativity or perhaps conduct a review aimed at obtaining a broad view of research on the creative product. However, the moment this question concerning the possible search items was asked, it was evident that both students were already 'thinking ahead', trying to quickly conceptualize what their 'theoretical chapter', as they called it, would have to consist of. Consequently, if I decided for the search items listed above rather than the latter two, this was because these would be my informants' choices, which is important from the point of view of preserving the study's ecological validity.

This last concern was also decisive in my setting for the same criteria as my two informants claimed they would use while conducting such searches. In the case of the first and the last search item nominated, definitions of creativity and organizational creativity, no specific expectations had been expressed, except for what was to become their concern as soon as they decided to work on their postgraduate degree: to be directed towards a niche they could themselves occupy. Academic texts usually address this need on our part by referring us to unresolved research problems and virtually all texts I analyzed contained such references. On the negative side, not all of them presented these suggestions in the format that, as my two informants had argued, they still preferred, partly due to the fact that conducting research was still new to them, as a consequence of which they still considered themselves inexperienced researchers.

As for the third search item they isolated, 'theories of creativity', here the two individuals assumed that a text

which would contain a reference to a few different theories of creativity without informing the reader of their scope, and, in particular, a theory's applicability to what fellow linguists concentrate on would necessitate further time-consuming searches they probably knew they would not be in a position to carry out. Additionally, they decided that being outsiders, they would prefer to be informed of how the theories they came across were viewed by those 'in the know' – fellow creativity researchers with more expertise than they themselves had. Needless, to say, both requirements were taken into consideration while conducting a simulation of what a search after this information would look like.

As the analysis had shown, a general tendency observed with respect to the sources analyzed was that both favoured a text recipient that represents the same field as the texts' authors or – in the case of the more recent text, *EOC* – also a lay reader with no intent to use the information found for research purposes. Since many of the deficiencies detected would be difficult to correct given the nature of these two as well as other publications of the same type (collective work produced by experts in a given field), my recommendation was for a separate volume as an optimal solution for research communities which know collaboration with other areas of specialization is a *sine qua non* of further progress in the field they represent. I also postulated that those responsible for its production should acknowledge the relation between the fields involved (in our case 'parent' to 'daughter'), as this relation partly determines the nature of the questions which 'others' will want to have answered. The number of disciplines in which one studies various manifestations of the phenomenon in question is

daunting, with those currently categorized as research into creativity in language and literature alone featuring over ten different 'academic areas' (Pope and Swan, 2011: 1). However, given the relationship between the two fields, generic and domain-specific creativity research, scholars from all these diverse areas will probably be looking in the direction of the 'parent' discipline with the same goal in mind.

Another issue the producers of such a volume should consider is that the volume's addressees will be evaluating what they read through the interpretive lens of concerns characteristic for their communities of origin, their specific mental set affected by their past experiences including, for instance, the background texts from which they were learning the tricks of their trade. If this reality is not taken into account, many of them will end up unconvinced. When one considers how many institutional obstacles to interdisciplinarity such individuals have to grapple with, one immediately understands that every additional hurdle may be one too many.

Concluding Remarks

Many academic texts we come across allow us to recreate the possible scenarios under which collaboration may occur. An analysis of a short fragment cited at the beginning of Chapter Three shows that scholars may, for instance, turn to the texts produced by others when unable to solve a research problem they have come across. However, as this study has shown, this pattern need not hold in the case of novice researchers for whom a quest into such texts may be dictated solely by the desire to get a general orientation within an area in which they hope to conduct their own research. Not knowing what to look for and, in consequence, not looking for anything specific, they may soon start feeling lost, especially if the authors of the texts they decide to consult do nothing to reduce the sense of alterity they start experiencing shortly after having entered a field of which they had no prior experience.

The analysis conducted in Chapter Two partly explained why the two individuals who agreed to co-operate with me in this project reacted the way they did: the topics researched within the field they entered differed significantly from those taken up within the research community they started to identify with. It cannot be ruled out that if we gave the same texts to seasoned scholars, they would soon find a way out and manipulate some of the variables in such a way that the studies produced

would still be classifiable as studies in linguistics. Novice scholars, however, still very apprehensive of how their work will be perceived by experienced colleagues may require more help in this respect.

This need to be given some special treatment also became evident when these two individuals were asked to specify the criteria they would be using while searching for something specific. The texts they chose this time because of what we can provisionally term as their anticipated informative value would not only have to contain the basic information sought; this information would also have to be delivered in some highly specific manner. The largely negative experiences gained during the preliminary phase of their research enabled them to formulate additional requirements they wanted to see fulfilled. A mere reference to an area in which further research was needed would no longer suffice. On the data collected, it soon became evident that these two individuals' level of collaborative readiness correlated closely with what information a text contained and how this information was delivered. The fragment cited at the beginning of Chapter Three, and revealing the circumstances in which experienced researchers come across texts which can, in retrospective, be classified as texts thanks to which collaboration could occur, points at a similar dependency between a text's informational value and one's readiness to collaborate.

To say that collaboration is somehow dependent on or a concomitant of a text's informational value, which we could, provisionally, define as a measure of whether and how much important information a text conveys to its audience (*important* meaning here important for the audience; something s/he prioritizes) is not, in itself, to

say something deeply revealing. Ideas of that kind can be found in more recent work on language functions such as Klinkenberg (1996), in which one is finally willing to admit what we, in a sense, always knew, namely that information may and does often lead to action as a final result. In other words, if a text's informative value is high, its persuasive, or operative value, which I understand, after Cost (2005: 99), as its ability to enable actions to take place, will also be high. Everyday examples pointing at, say, texts such as tourist brochures which will, or will not convince one to visit a region depending on whether the information they contain (e.g. on the major tourist attractions of the region) suits one's interests and preferences, could be cited with ease. In dictionary research, a discipline in which I have my origins, a similar interdependency between the text's contents and the users' willingness to 'collaborate' (meaning, in this case, to use the dictionary), has not only been noted but affected the production of many dictionaries, whose authors are also trying hard to predict what information would be vital for this specific rather than some other user population. Discourse analysts, too, repeatedly stress how important it is to be able to predict what our interlocutors are hoping to learn and what they can or cannot be expected to know if communication is to proceed without breaks. The data obtained suggest that academic texts are not different in their respect. If these needs and priorities cannot be predicted *via* conventional communication channels, textual data – the texts our potential collaboration partners can be expected to know – should help us determine the 'what' and the 'how', i.e. what information will be expected and how to best 'package' it so that our texts informs and persuades in one go.

Should novice researchers indeed be given this 'special treatment' that my two informants implied this population may require? In my opinion, this is a question that every research community which knows how important enticing others would be would have to answer independently. Statistically, novice researchers may, however, constitute an important target audience that such communities will be trying to reach: as demonstrated by scholars I cited in this work's first chapter, they seem more likely to swallow the hook than their older colleagues, in the case of which tenure concerns often make them choose the safer solution, work in the disciplinary paradigm. On the other hand, generalizing on the basis of two cases alone would be unjustified and if such a study were to be repeated on a different population, problems different from those diagnosed above could surface. This notwithstanding, novice scholars do seem to require more explicit 'prompts' and one can often observe how they struggle with, say, texts saturated with passive constructions, unable to figure out on their own what precisely is expected of them. They also do have problems with locating the information needed, with managing their time wisely and with identifying a research problem when they come upon one. All these issues would have to be taken into consideration while designing a text intended to enhance the idea of interdisciplinarity.

It is generally accepted that interdisciplinary collaboration, a *sine qua non* of progress on quite a considerable number of research topics is very easy to postulate, but difficult, if not impossible, to implement. That is evident from examining the issue from the perspective of texts scholars produce: texts which do meet the standards required for academic prose and yet fail to

meet the expectations of one's potential collaboration partners, thus showing that declaring something and really meaning something may be two different things. This notwithstanding, I am fairly confident that those who do believe in facilitating the formation of closer interdisciplinary ties with other disciplinary affiliations will also find a way to do it, even without the findings obtained within the present project, which, after all, only confirmed what we always knew – that effective communication is impossible without one's ability to predict the needs of his/her interlocutors.

Afterword

One reflection that stayed with me while I was in the process of writing this book was that by contrast with what we sometimes witness in texts written by seasoned researchers, young inexperienced ones never speak about the texts they come across in terms of a barrier. Oral communication is perhaps different in this respect: talking face to face one may feel more courageous than one would normally be. A short anecdote I found in one of the texts I once did with one of my students confirms this, also facilitating our understanding of how difficult it may be for our audience to understand what we ourselves take for granted:

> Once in a Berkeley café, just before linguist and lexicographer were scheduled to give a joint paper, the following exchange took place:
>
> *Lexicographer*: I'm sorry, I don't quite understand that – could you explain it again please, slowly.
> Linguist does so, very slowly. Lexicographer asks a tentative question for clarification.
> Linguist flinches.
> *Lexicographer* (panicking): Do you sometimes want to give up, and bang your head down really hard on the table?
> *Linguist* (thoughtfully): Not *my* head. (Atkins and Rundell, 2008: 10)

This short text – for me an epitome of interdisciplinary communication – could, in itself, constitute a good starting

point of yet another case study. For even though the conclusions extracted from them may not be generalizable to other sites and/or other populations, case studies – all these highly idiosyncratic records of our experiences – have long been appreciated for what other research formats often lose sight of: the specific, individual meanings someone attaches to these experiences; in short, all this 'noise' applied researchers know are part and parcel of the milieus in which they are functioning. The fate of such stories (granted they actually get published) differs, and so does the fate of those who decide they do deserve to be heard and try to record them and next present them to wider research community. Critics may remain unconvinced, whereas moderate enthusiasts will keep arguing for the place of a case study especially in all those research areas where our knowledge is non-existent, fragmentary, or shallow.

Case study authors like myself, are ill qualified to speak on this issue. They know perfectly well that having a single or a few cases presents limitations. They are aware of audience criticality. In most cases, however, they do it firstly because they think that some of the processes investigated would be very difficult to capture adequately in any other research methodology and, secondly, because they feel they owe it to those whose concerns would otherwise be difficult to get through.

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[180] This bibliographical address refers to the first appearance of Guilford's 1950 Presidential Address to the American Psychological Association, but interested readers will find it in the electronic version at www.cpsb.com/reserach/articles/creativity-reserach/Creativity-Reserach-Guilford.pdf.

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