Neglected Issues and New Orientations for Research and Practice in Reminiscence and Life Review

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This article pinpoints some issues which have been overlooked in research and practice in reminiscence and life review, a field which has experienced tremendous growth in the last decades. It also presents a series of ideas for energizing research and practice in these domains. Revisiting the functions of reminiscence, exploring its neural bases, addressing cultural, age, and gender differences, taking advantage of new media technologies for research, as well as practice, and using the insights from autobiographical memory research for advancing research, as well as clinical applications, are some of the topics on which this article focuses. The hope is that some of these suggestions will contribute to the field's continuing development.

Key Terms: Autobiographical Memory; Life Review; Reminiscence Functions; Reminiscence Interventions

The field of reminiscence and life review, in both research and practice, has grown exponentially in recent decades. Comprehensive accounts of this era of progress have appeared in a series of integrative reviews (Caza, 2013; Webster, Bohlmeijer & Westerhof, 2010; Westerhof, Bohlmeijer, & Webster, 2010). These reviews are a plus for anyone new to the field of reminiscence and life review who is seeking orientation in the domain. Concerning practice with older adults, several recent reviews have integrated the work of many authors from different health disciplines who have developed and evaluated various forms of reminiscence intervention over the last 30 years. These reviews concur that interventions based on reminiscence generally improve the well-being of older adults (Bohlmeijer, Roemer, Cuijpers, & Smit, 2007) and are efficacious in the treatment of mental health problems, namely depression (Bohlmeijer, Smit, & Cuijpers, 2003; Chin, 2007; Cuijpers, Van Straten & Smit, 2006; Pinquart, Duberstein, & Lyness, 2007; Pinquart & Forstmeier, 2012) and dementia (Subramaniam & Woods, 2012).

This article does not intend to provide a comprehensive review of research on any given topic in the large field of reminiscence and life review. Rather, I seize the opportunity afforded by the inaugural volume of this new journal to identify some outstanding questions and neglected issues, promising developments, and avenues for future research and practice.

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Basic Research

Revisiting the Functions of Reminiscence

The bulk of the research on the functions of reminiscence has relied on a typology comprised of eight basic functions, as identified with the help of the Reminiscence Functions Scale (RFS; Webster, 1993, 1997). As a case in point this typology has served as the basis for the empirical development of a higher-order model depicting links between various forms of reminiscence and the well-being of older adults (Cappeliez & O'Rourke, 2006; O'Rourke, Cappeliez, & Claxton, 2011). In this model three latent constructs subsume the eight functions of reminiscence identified by Webster: self-positive functions (i.e., identity, problem-solving, death preparation); self-negative functions (i.e., bitterness revival, boredom reduction, intimacy maintenance); and prosocial functions (i.e., conversation, teach/inform). We invite more research on that model. For instance, in line with the lifespan approach at the core of the domain (e.g., Webster, 1999), it would be interesting to determine the extent to which this tri-partite model applies to the experience of middle-aged and younger adults. It would also be interesting to examine the dynamics of individual reminiscence functions, i.e. the stability or change in various functions of reminiscence in relation to well-being For instance, is stability in self-positive functions a key factor for psychological well-being in the later period of life? Another point worth exploring is the intersection of personal memories with future projections. Recently, d'Argembeau and his colleagues (d'Argembeau, Lardi, & Van der Linden, 2012) showed that individuals who extracted more meaning from their past experiences

(i.e., the postulated main purpose of self-positive reminiscences) also reflected more about imagined future events; in so doing producing a strong sense of continuity over time. It would be interesting to examine in more detail how this relationship applies to the individual self-positive functions and how the self-negative functions interfere with this process.

Undoubtedly the basic typology of eight individual functions of reminiscence has made possible notable progress in understanding the contributions of the various forms of reminiscence to mental health and well-being. However several issues linger. I will allude here to two of the most salient.

The RFS is limited in its coverage of the rich domain of social functions of reminiscence. In particular, the function of reminiscence for conversation appears limited in its capacity to tap the social bonding function of reminiscence that includes the development of intimacy in relationships (Alea & Bluck, 2003). In contrast, in building their scale (Thinking About Life Experiences Scale, TALE), Bluck and Alea (2011) have chosen to target the bonding and intimacy components of the social functions (separate scales for developing relationships and nurturing relationships), at the expense of the other social functions of reminiscence of entertainment/pure conversation and teach/inform. Rasmussen & Habermas (2011) have since confirmed the validity of considering separately the functions of reminiscence for nurturing existing relationships and developing new relationships. Clearly a merger of the two orientations would provide a more comprehensive coverage of the social functions of reminiscence and would lead to a more refined understanding of their contributions to psychological wellbeing. This is just one example of the benefits of crossfertilization between the two traditions of reminiscence research (originating from developmental psychology) and autobiographical memory research (a branch of cognitive psychology), a topic on which I will say a little more below in the context of reminiscence-based interventions. Another glaring gap in the assessment of reminiscence functions through self-report questionnaires, such as the RFS or the TALE, is the domain of emotional regulation. This is rather surprising given the prominence given to this topic in the study of autobiographical memory in older age (e.g., Mather & Carstensen, 2005; Pasupathi, 2003).

Most of the data regarding functions of reminiscence (or autobiographical memory) consist of self-evaluations by individuals of their frequencies of reminiscing for various purposes, as listed on a questionnaire such as the RFS or the TALE. Little attention has been paid so far to basic problems that methodology entails. As we commented before (O'Rourke et al, 2011), older adults may well differ in their respective definitions and understanding of reminiscences and their functions. For instance, Pillemer (2003) reported that individuals are less

aware of memories used for guidance purposes than those for self or social functions. Self-report instruments measuring the frequency of various reminiscences may therefore skew responses toward functions involving awareness and effortful mental activity neglecting more elusive and/or automatic modes of reminiscences. Retrospective and potentially reconstructive judgments required by scales, such as the RFS, may well be influenced by implicit theories about the relevance and value of reminiscing. "In-the-Moment" recording of reminiscence episodes and associated phenomena via new mobile devices (see later) may help overcome some of these problems (Cappeliez & Webster, 2011).

Cultural Differences

The domain of cultural differences in reminiscence has been burgeoning of late, but there is still much to discover as reviewers have aptly noted before (Webster et al., 2010). Starting with the basic willingness to open up on the topic of reminiscence and share personal memories, there are obvious cultural differences which have rarely, if ever, been considered in the research literature.

Meaning and valence of the various ways of reminiscing may depend on the culture. As Ross and Wang (2010) aptly remarked, cultural differences in physical environments, self-views, concerns for behavioral and emotional regulation, socialization and language shape the contents and functions of personal memories. In a qualitative study on the reminiscing patterns of older African-Americans, Shellman, Ennis, and Bailey-Addison (2011) found that, even though these persons reminisce for many of the same purposes as previously studied samples (mainly from North America, Western Europe and Australia-New Zealand), there are some distinctions in valence; reminiscing for death preparation being considered as more negative and reminiscing for intimacy maintenance as more positive, compared to other samples. Kulkofsky et al. (2010) examined reasons for reminiscing in European American and Chinese samples and found that the European American sample reported more functional reasons (e.g., self and social functions) whereas the Chinese sample reported more non-functional reasons for reminiscing (e.g., recency, emotionality).

In a rare study contrasting English Canadian and Jewish Israeli older adults, O'Rourke and his colleagues (O'Rourke et al., 2013) demonstrated that the tri-partite model of reminiscence functions, including positive and negative self-functions and prosocial functions (see above), was equally applicable to both samples. However differences were observed in the weight of some functions (from the RFS) making up these three over-arching ones. Relatively lower importance given to reminiscence for identity and boredom reduction and higher importance attributed to reminiscence for bitterness revival by Israelis compared to Canadians may be representative of

individuals focused on concerns of national, rather than individual, identity and personal security in a context of present-day exposure to dramatic life events.

There are other stimulating questions to address. For instance, if, indeed, interpersonal relatedness is more important for Chinese than North Americans (Fung, 2013), it would be interesting to examine if the prosocial functions of reminiscence take on a larger role in the psychological adaptation of Chinese older adults, compared to North Americans, or even Europeans. Another idea: it has been shown that the self-enhancing function of a youthful and positive perception of aging is stronger for American than for Dutch adults (Westerhof, Whitbourne, & Freeman, 2012). The idea follows that the past reminiscence connoting a longing for (reminiscence for boredom reduction/escapist reminiscence) could well take on a different meaning for these two groups, with a comparatively lower salience for samples from a Western European country, such as the Netherlands.

Much of the attention has so far been directed at contrasting Eastern and Western cultures. We have very little systematic information about ways of reminiscing among other cultures. Yet one would assume that reminiscing may be particularly salient in some cultures, such as African ones, still dependent on oral transmission of knowledge.

The Neurosciences Perspective

Exploring the neuronal substrate of the functions of reminiscence with the new neuroimaging techniques constitutes another exciting avenue of future research. It would be interesting to map the neural regions mediating the retrieval and elaboration of personal memories distinctively for each type of reminiscence function and their relation with brain areas involved in the processing of emotions and thoughts.

Directions for this program of research can be found in the research literature that postulates specific links between emotions. thoughts, and reminiscences (Cappeliez, Guindon, & Robitaille, 2008). For instance, this work suggests (a) that narrative (simple, nonevaluative reminiscence) triggers momentary positive emotions such as joy, (b) that integrative reminiscence leads to longer-lasting and more cognitively complex positive state such as serenity, and (c) that self-negative reminiscences such as ruminative and escapist reminiscences, and to some extent intimacy reminiscences, induce depressive and anxious feelings. Reports of differences in functions and vividness of reminiscence between young and old adults (e.g., Webster & Gould, 2007) could also be examined from this neurological perspective.

These hypotheses could be tested experimentally with a technique of cued reminiscence and concurrent neuroimaging recording, thus providing ways of testing causal links between reminiscence and mental states. This endeavor can be framed by the research on the neuronal substrate of autobiographical memory (Addis, Wong & Schacter, 2007; Piolino, 2008), anchored in the Self-Memory Model (Conway, 2005; Conway & Pleydell-Pearce, 2000).

The New Technologies for the Study of Reminiscence (and the Practice of Reminiscence Interventions)

Formidable progress in computer-based technologies offers powerful tools for research on autobiographical memory, reminiscence, and life narratives. Suffice here to name a few of these exciting opportunities.

As mentioned above, advances in tablets and other mobile devices offer opportunities for on-line recording of reminiscence and associated phenomena, thus bringing research on reminiscence to a new level. Pioneering efforts have been directed at taking advantage of electronic resources for delivering or supplementing reminiscence interventions. Results of life-review therapy for depression in older adults in a face-to-face setting with additional computer use are promising (e.g., Preschl et al., 2012).

New developments in computer-assisted text analysis promise to boost qualitative research on reminiscence. For instance, the expanding field known as computer-assisted reading and analysis of text (CARAT) provides the tools for the systematic empirical exploration of themes in reminiscence accounts and narratives, permitting not only classification and categorization but, more importantly, the determination of relationships between concepts and ideas and their structural organization (De Pasquale & Meunier, 2003; Meunier, Forest, & Biskri, 2005).

Virtual reality is another domain of tremendous interest for research in autobiographical memory and reminiscence. It is now entirely possible to recreate virtually, with images, sounds, and smells, various contexts of one's personal past in laboratory condition (Schnall, Hedge, & Weaver, 2012). The person can navigate at will through this vivid and personalized environment, deciding what to visit and for how long, behaviors that can be recorded and analyzed. Exposure to such an environment could conceivably be more potent for triggering memories than exposure to photos and manipulation of objects. Obviously virtual reality presents also tremendous opportunities for the practice of life review.

Practice Issues

Processes Mediating the Effects of Reminiscence

In the treatment of depression we now have a better understanding of the processes underlying the positive outcomes achieved with reminiscence intervention. In the mid-90's, Watt had made some specific propositions about these mediating processes (Watt, 1996; Watt & Cappeliez, 1995). Specifically she had suggested that integrative reminiscence reduces depressive symptomatology through increased self-esteem, increased sense of purpose and personal meaning, and decreased hopelessness. Additionally she had proposed that instrumental reminiscence works against depression via increased personal control and use of problem-solving for current issues. These insights have been largely supported by subsequent research. Recently it was shown that meaning in life, self-esteem, and optimism mediate the relationship between integrative reminiscence and depressive symptoms, whereas primary control and self-efficacy mediate the link between instrumental reminiscence and depressive symptoms (Hallford, Mellor, & Cummins, 2013). In a study on the mediators of change in a lifereview intervention, using a longitudinal design, Korte, Westerhof, and Bohlmeijer (2012) revealed that increases in mastery and positive thoughts were the key mechanisms explaining the effectiveness of the intervention for depression and anxiety.

In parallel research on the functions of reminiscence, Korte, Bohlmeijer, Westerhof and Pot (2011) reported that reminiscence for problem solving was negatively associated with anxiety symptoms, whereas reminiscence for bitterness revival was positively correlated with depressive symptoms. The perniciousness of bitterness revival and boredom reduction reminiscences for depression and anxiety was further underscored by recent findings (Cappeliez & Ismail, 2013).

This set of data provides a rich base of information for ways to further enhance the therapeutic power of reminiscence-based intervention for depression and anxiety. For instance, it is now clearer than ever that the primordial target for reminiscence interventions with depressed and anxious persons ought to be the interruption of the cycle of ruminative self-negative reminiscences. To achieve this goal, reminiscence interventions may usefully integrate the training in skills of mindfulness-based therapy (Segal, Williams, & Teasdale, 2002) in order to help the person disengage from mind states characterized by patterns of ruminative, negative thinking. Another example contained in the work of Korte and her colleagues mentioned above is the need to focus on instrumental reminiscence when intervening with anxious persons.

Reminiscence Intervention for Young People

Reminiscence-based therapies have focused solely on older adults, true to the foundational idea that late adulthood is *the* phase of life when the search for integration and meaning come to be a dominant developmental task (Erikson, 1959, 1998).

In contrast, research on the functions of reminiscence has adopted a life-span perspective from its inception. For the record, Webster's early work on the functions of reminiscence leading to the construction of the Reminiscence Functions Scale (RFS: Webster, 1993) was conducted with adults of a wide age range (i.e., 17-91 years). It has become clear that young adults use reminiscences for different purposes than older adults. A few studies using the RFS (Cappeliez, Lavallée, & O'Rourke, 2001; Webster & McCall, 1999; Webster & Gould, 2007) have shown that not only do young adults report a higher frequency of reminiscing, in general, compared to older adults; they distinguish themselves by elevated use of reminiscences for identity and problemsolving – two key positive self-reminiscences, perhaps interpretable as they progress through an intensive period of definition of identity and life goals.

These findings have yet to be used in the development and trial of reminiscence intervention for the reduction of psychological distress and the improvement of well-being of young and middle-aged adults. For the record guided autobiography as developed by Birren and his colleagues has always been practiced with intergenerational groups (Birren & Cochran, 2001). Clearly examining reminiscence intervention with younger people is a justifiable enterprise (Hallford, et al., 2013).

Gender Differences and Reminiscence Interventions

Research in autobiographical memory has well established that, relative to men, women show better autobiographical memory (Schulkind, Schoppel, & Scheiderer, 2012). They show greater fluency in retrieving autobiographical memories, construct longer, more detailed, more emotional, and more coherent autobiographical narratives. In other words, it would appear that, generally, reminiscing comes easier for women. Men tend to display a factual orientation, i.e., they view factual information as essential to being able to talk about the past and understanding it (Schulkind et al., 2012). Clearly this insight has significant ramifications for the practice of those reminiscence-based interventions that rely on a constructive re-evaluation of one's past. It means that, in this type of intervention, whereas women may gravitate naturally toward an evaluative stance, men will need more persuasion and coaching in that direction. With possibly complex emotional weight associated with their

personal memories, women may benefit from a structured approach that allows for attending the various issues sequentially.

Who Can Benefit More from Reminiscence-Based Intervention?

There has been some concern among practitioners that reminiscence-based interventions, by virtue of reactivating bad memories, may be especially counterproductive in the treatment of depression. Contrary to this opinion recent research has shown that even individuals with high levels of depressive symptomatology and neuroticism can benefit from life review therapy (Korte, Bohlmeijer, Cappeliez, et al., 2011). That being said, much remains to be done in identifying persons suitable (or not) for the intervention and most likely to benefit from it. Existing research brings piecemeal information. For instance, life review therapy conducted in a group may be more beneficial for extraverted people and less so for those demonstrating high levels of reminiscence for boredom reduction (Korte, Bohlmeijer, Cappeliez, et al., 2011).

The bulk of our information on the efficacy and implementation of reminiscence interventions is based on research conducted mostly with female participants. Indeed, about 80% of the studies reviewed by Pinquart and Forstmeier (2012) had been conducted with samples constituted of a majority of women, often a vast majority. In line with the above remarks we need more research on gender as a moderating factor of the efficacy of these interventions. In the same vein there is room for adaptation to the delivery and format of reminiscence interventions in order to attract and keep male participants.

How Reminiscence Practitioners Can Benefit from Knowledge of the Literature on Autobiographical Memory

Quite a while ago, we delineated the many advantages that the fields of reminiscence and autobiographical memory could gain from integrating each other's insights in a concerted collaborative effort (Webster & Cappeliez, 1993). Yet, it is fair to say that, despite the huge overlap in research interests, these fields have continued to develop in separate ways, with minimal cross-fertilization and often little acknowledgement of each other's work. I will just point out one example of the relevance of autobiographical memory research to the practice of reminiscence interventions.

At a number of junctions in a reminiscence intervention the participant is prompted to recall and share specific memories. Typically, the practitioner readily assumes that such a memory is representative of the individual's relevant life time experiences and often interprets it on that basis. Yet research on autobiographical

memory tells us that specific memories are not necessarily so representative. In a paper advising interviewers on ways to elicit and adequately interpret concrete experiences, Thomsen and Brinkmann (2009) underline the point that recall of a specific memory proceeds as a hierarchical search through various levels of specificity (i.e., lifetime periods, general events, and event-specific knowledge) and as a reconstructive process in line with the self-memory system of autobiographical memory (Conway, 2005; Conway & Pleydell-Pearce, 2000). Other factors besides importance determine if an experience will become a long specific memory, such as novelty/unusualness, rehearsal, and social sharing. Later experiences also change the significance of the original experience and thus undeniably influence the specific memory of that experience. In sum, the practitioner interested in gaining a fuller picture of the participant's self is cautioned about the pitfalls of generalizing and overinterpreting specific memories at the expense of typical experiences found in extended events and generic memories.

Reminiscence Interventions for Primary Conditions Other than Depression and Dementia

So far, the bulk of the work on reminiscence intervention has focused on older adults presenting primarily with depression or dementia. Application of reminiscence intervention for other conditions lags behind, despite reported evidence that it works particularly well for depressive symptoms in persons with chronic physical disease (Pinquart & Forstmeier, 2012). For example, one recent initiative aims at extending the applicability of reminiscence intervention to individuals with Parkinson's Disease (Caza, 2013). Worth mentioning also is the near absence of work in the area of anxiety disorders, with the exception maybe of traumatic stress (Westwood & McLean, 2007), but, even there, more research is needed.

Most evaluations of reminiscence intervention outcomes focus on changes in symptomatology; for example reduction in the severity of depressive symptoms. Yet, at their core, most reminiscence-based interventions aim not only at reducing symptoms of psychological distress but also at facilitating personal growth and development. Facets of this positive psychological functioning have too rarely been included in the assessment of intervention outcomes.

Conclusion

The field of reminiscence and life review has grown exponentially since, half a century ago, Butler (1963) drew attention to the developmental and clinical relevance of examining one's life and gave the domain its "lettres de noblesse." This article simply offered a Smörgåsbord of ideas for future research and practice in the field of autobiographical memory, reminiscence and life review.

Hopefully some of the ideas expressed in this article will be picked up by new waves of researchers and practitioners and humbly contribute to its continuing development.

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