
LETTER TO THE EDITOR

Proust Reinterpreted: Can Proust's Account of Odour-cued Autobiographical Memory Recall Really be Investigated? A Reply to Jellinek

Simon Chu and John J. Downes

School of Psychology, The University of Liverpool, Liverpool L69 7ZA, UK

Correspondence should be sent to: Simon Chu, School of Psychology, The University of Liverpool, Eleanor Rathbone Building, Bedford Street South, Liverpool L69 7ZA, UK. e-mail: chu@liverpool.ac.uk

Odours have long been believed to evoke particularly powerful autobiographical memories, an effect that has been labelled the 'Proust phenomenon'. The phenomenon is so named because of the well-known literary anecdote reported by Proust (1913) at the beginning of his novel, *A la recherche du temps perdu*, wherein his autobiographical memory is productively stimulated by an olfactory experience. Jellinek has recently contributed an insightful and scholarly analysis of the relevant passages from Proust's writings with reinterpretations and improvements in the translation that, although subtle, convey a greater sense of the evocative and powerful experience that Proust reported.

Our paper reviewing the empirical research on odour-evoked autobiographical memories (Chu and Downes, 2000a) addressed the different approaches that previous investigators have taken in examining the question of whether memories cued by odours are qualitatively different to those cued by other-modality stimuli. In doing so, we highlighted the methodological errors that were present in other lines of research and questioned their applicability to answering questions concerning odour-evoked autobiographical memories. Finally, we described some of our own work that we believe solved some of the methodological problems present in the literature and provided supportive evidence for the view that odour-evoked autobiographical memories are indeed older, more affective and more detailed than memories cued by other modalities. This empirical work was subsequently published in full (Chu and Downes, 2000b, 2002).

However, Jellinek has questioned our approach to investigating odour-evoked memories and, in particular, with reference to their applicability to Proustian phenomena. In the main, Jellinek's criticisms centre around our statement that: '[o]ur own approach to the investigation of Proustian phenomena involves translating the essence of Proust's anecdotal literary descriptions into testable scientific

hypotheses' (Chu and Downes, 2000a, p. 114). According to Jellinek, our approach in investigating only the age, degree of affect and amount of detail associated with odour-evoked memories is an over-simplistic interpretation of the rather more complex experience which Proust famously reports. Jellinek's remedy is to propose a set of 11 hypotheses which stem directly from Proust's description of the process of retrieving a memory in response to the taste and smell of the tea-soaked Madeleine pastry. According to Jellinek, the three hypotheses that we proposed and investigated do not go far enough in elucidating the full complexity and subtlety of Proustian phenomena.

Somewhat paradoxically, however, Jellinek also acknowledges the fact that Proust's writings are fictional and not meant as empirical records of human memory processes. It is this point which we would first wish to emphasize even more firmly. Objectively, there is no reason to believe that the process of memory retrieval that Proust describes so eloquently, and in such tortuous detail, actually occurred. Even if it did in fact occur, and if Proust's account is autobiographical, there is no reason to believe that Proust was able to record his subjective experiences accurately; it is much more likely that Proust recorded his experience some time after the event and from his reinterpreted and reconstructed memory of what had occurred during that retrieval experience. In any case, it is highly unlikely that what we read in *A la recherche du temps perdu* is a literal online record of the series of stages involved in retrieving a memory in response to an odour. This is an obvious point and, given that this is not a novel position, we are therefore puzzled as to why Jellinek is keen to focus more literally on the precise stages that Proust describes in his fictional retrieval. By way of explanation, Jellinek also states that Proust's account has also 'found support both in others' autobiographical accounts and in experimental research'. However, other autobiographical accounts merely provide evidence of the

same type and reliability as Proust's and little empirical evidence is actually provided.

Jellinek's attempt to 'translate [Proust's] account into testable scientific hypotheses' is quite literally a psychological translation; a simple stage-by-stage breakdown of Proust's process of retrieval, but written in the language of cognitive psychology. However, no attempt is made to couch these statements within any existing psychological framework of cognition, attention, perception or emotion. Jellinek's hypothesis 1, for example, proposes that 'awareness of the emotions associated with an olfactory stimulus is prior to awareness of the presence of the sensory stimulus which elicits the experience', but gives no reference to the large body of psychological literature that has examined the relationship between emotion and cognition, and specifically whether emotions can be experienced without conscious awareness of their source (e.g. Zajonc, 1980, 1984; Lazarus, 1982). Indeed, what appears to result from Jellinek's translation of Proust's experience is a series of statements which approximate descriptive hypotheses in the broadest sense, but rarely make any predictions about behaviour. For example, Jellinek's hypothesis 2 states: 'The impetus for a search of the cause of the emotions associated with an olfactory experience is surprise, engendered by the apparently causeless surge of emotion experienced'. It is difficult to imagine how such an 'hypothesis' could be tested, given that it proposes a particular motivation (surprise at emotion) for the initiation of a cognitive operation (search for cause of emotion). One cannot easily see how evidence could be provided for the proposal that it was specifically surprise (rather than shock, happiness or some other emotional response) that provided *the impetus* for a search for a cause of a particular emotion and, in that sense, the hypothesis is not testable. A similar characterization could also be levelled at many of Jellinek's other proposed hypotheses and it seems that, as proposed hypotheses more closely and specifically describe Proust's experience, they also become progressively less testable. It is this trade-off between adherence to Proust and testability which we were reluctant to engage in to any degree, choosing the more general (and perhaps, in Jellinek's view, simplistic) hypotheses which were more empirically accessible.

This trade-off is vividly illustrated by a criticism that Jellinek makes of our finding concerning the age of odour-evoked memories. One of our studies (Chu and Downes, 2000b) showed that the peak in frequency for odour-evoked memories appeared when respondents were between the ages of 6 and 10 while memories cued by words peaked later in the lifetime, demonstrating that odour-evoked memories were more aged. Jellinek coarsely characterizes this as '*irrelevant* to Proust's elation about recapturing a lost period of his life' (emphasis added) and we acknowledge that our hypothesis—that odour-evoked memories are particularly old—does not really address the true wonder that Proust described in reliving a long-forgotten period of his life.

Nevertheless, we believe that implicit in Proust's description is the broader concept that odour-evoked memories are generally more aged. Although Proust did not specifically state, 'Wow, I've never experienced such an old memory', it is not unreasonable to question whether there is a tendency for such retrieved memories to be older than those cued in other ways. This (rather logical) extension of Proust's description results in an hypothesis that, in the laboratory, is eminently more testable than the proposal that odours can revive long-forgotten periods of one's life. The type of experience which Proust describes, where an odour revives a highly significant memory long since forgotten, is indeed a rare experience and unlikely to occur with sufficient regularity that they can be studied effectively in a laboratory; further, once a particular odour revives a long forgotten memory, a subsequent presentation of that odour would initiate a qualitatively different retrieval experience than the first retrieval. Retrieval the second time around would be much easier. Therefore, it would be only the first retrieval, rather than subsequent retrieval attempts, that would be of interest to Jellinek in this regard. The practicalities of conducting research on only the first odour-cued retrieval attempts of long-forgotten memories is an issue outside the realms of this paper but one can see how impractical such a line of research would be. Our approach was to tone down the precise qualities of Proust's reported recall and examine the more general version of this aspect of Proust's account. Nevertheless, it is not impossible to study these types of never-before-retrieved memories. Rubin *et al.* (1984) asked participants to retrieve autobiographical memories in response to odours, pictures or words and also asked participants to rate how often the retrieved episodes had been thought of and spoken of prior to the study. They found that odour-evoked memories were indeed thought of and spoken of less often prior to the study and were more likely to be reported as never having been thought of or spoken of prior to the study. However, it is unlikely that the quality of these memories were of the same life-altering magnitude and significance as that described by Proust. The types of memories that Rubin *et al.* studied are likely to be the more everyday autobiographical episodes that are common in our own data. Never have any of our own participants been brought to a shuddering halt (in a Proustian manner) in response to an odour/memory and to focus specifically on only the more *authentic* Proustian memories would prove problematic.

Part of Jellinek's criticism of our (mis)interpretation of Proust's writings may stem from commonly held popular/folk misinterpretations of Proust. While it is widely held that Proust's memories of Combray were famously revived in response to an odour, purists (including Jellinek) will remind you that it was, in fact, the taste, texture and temperature of the tea-soaked Madeleine, as well as the smell itself, that revived the memory. Even so, it is olfaction which has become most strongly associated with Proust's recollection,

rather than the rather more complex olfactory–gustatory–thermo-textural combination. It is likely that this simplified interpretation of Proust’s experience has developed, not because of a mass misinterpretation of Proust’s writings, but because the idea that odours can themselves evoke particularly vivid memories also fits with common experience. It is not uncommon for odours alone to cue vivid and affective memories and it is this common perception that has shaped our, and others’, interpretation of Proust. In fact, it was more this common perception that we sought to study in our research rather than precisely what Proust had experienced and we may have been slightly misleading in labelling our work as direct tests of Proustian phenomena. We believe our work does examine Proustian phenomena, but only *what have become known* as Proustian phenomena—the ability of odours to evoke autobiographical memories with particular potency. As Jellinek correctly points out, Proust’s experience, in more precise terms, involved much more than that which we have investigated; on the other hand, it is also true to say that Proust’s experience involved a more complex compound retrieval cue than that which Jellinek proposes. At the end of the day, it is perhaps incorrect to hang these ideas on the hook of Proust’s retrieval, but in common parlance, this seems to be the hook upon which this class of memory phenomena already hang.

Our approach has been to consider Proust’s account and, rather than treating it as an account of a memory process, we have examined it for aspects of memory which are consistent with common anecdotal beliefs concerning odour and memory, and also aspects which tie in to accepted models of autobiographical memory structure and function. Using this converging evidence, we formulated theory-driven hypotheses which fit within a strong theoretical framework, that of Conway’s autobiographical memory model (e.g. Conway and Pleydell-Pearce, 2000; Conway and Rubin, 1993). While our hypotheses may not be a *translation* of Proust’s writings (because Proust’s retrieval was clearly more complex than that which we describe in our hypotheses), we believe they are a scientific translation of the *essence* of them. By essence, we mean the fundamental nature and characteristics of these types of memory retrieval. We do not believe, for example, that the experience of an emotion before the awareness of the stimulus that

evokes that emotion (Jellinek’s hypothesis 1), is a fundamental characteristic of Proust’s account; certainly this may be *a* characteristic, but not one that is fundamental. Rather, we see the fundamental nature of Proust’s experience in the retrieval of memories that are much older, much more emotional and much more vivid than one might normally expect. The essence of Proust’s account is simply that odours are particularly powerful reminders of past experiences. There may well be other associated characteristics but these are the essence of what Proust described, and it is only these that we sought to investigate. We willingly acknowledge that there are differences between Proust’s fictional experience and what has come to be known as Proustian retrieval; we willingly acknowledge that our research has addressed only the latter of these accounts but we also emphasize that, in terms of making a contribution to the psychology of memory, it is the latter account that is in fact more relevant.

References

- Chu, S. and Downes, J.J. (2000a) *Odour-evoked autobiographical memories: psychological investigations of Proustian phenomena*. *Chem. Senses*, 25, 111–116.
- Chu, S. and Downes, J.J. (2000b) *Long live Proust: the odour-cued autobiographical memory bump*. *Cognition*, 75, B41–B50.
- Chu, S. and Downes, J.J. (2002) *Proust nose best: odors are better cues of autobiographical memory*. *Mem. Cogn.*, 30, 511–518.
- Conway, M.A. and Pleydell-Pearce, C.W. (2000) *The construction of autobiographical memories in the self-memory system*. *Psychol. Rev.*, 107, 261–288.
- Conway, M.A. and Rubin, D.C. (1993) *The structure of autobiographical memory*. In Collins, A.F., Gathercole, S.E., Conway, M.A. and Morris, P.E. (eds), *Theories of memory*. Lawrence Erlbaum, Hove, pp. 103–137.
- Lazarus, R.S. (1982) *Thoughts on the relations between emotion and cognition*. *Am. Psychol.*, 37, 1019–1024.
- Proust, M. (1913) *A la recherche du temps perdu*. Bernard Grasset, Paris.
- Rubin, D.C., Groth, E. and Goldsmith, D.J. (1984) *Olfactory cuing of autobiographical memory*. *Am. J. Psychol.*, 97, 493–507.
- Zajonc, R.B. (1980) *Feelings and thinking—preferences need no inferences*. *Am. Psychol.*, 35, 151–175.
- Zajonc, R.B. (1984) *On the primacy of affect*. *Am. Psychol.*, 39, 117–123.

Accepted May 5, 2004