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## Methodological note: Erratum and comment on the use of the Revised Transliminality Scale<sup>☆</sup>

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Recently, Hunt, Dougan, Grant, and House (2002) provided an analysis of the major dimension of individual differences variously defined as absorption, openness to experience, imaginative involvement, and childhood fantasy proneness. These and other relatively dated terms like "flexibility of repression" and "ego-permissiveness" stem from "psychology's" long-standing tradition of recognizing and attempting to study mental boundaries. Towards this end, Lange, Thalbourne, Houran, and Storm (2000b) recently published in this Journal a "top-down purified" Rasch version of a 29-item, true/false *Transliminality Scale* (Form B) originally proposed by Thalbourne (1998). Top-down purification refers to a set of statistical Rasch (1960/1980) procedures outlined by Lange, Irwin, and Houran (2000a) that identify and remedy differential item functioning in questionnaires, i.e., response biases related to extraneous variables such as "respondents" ages, genders, or even cultures. Furthermore, the Rasch process yields a scale that has interval-level properties. Response biases are important to address, because they can elicit spurious factor structures of test items, as well as erroneous findings from statistical analyses (cf., Lange, Irwin, & Houran, 2001).

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Therefore, the techniques outlined in Lange et al. (2000b) overcome the limitations of classical test theory and are considered the gold standard in scale construction.

Top-down purification of Thalbourne's (1998) original 29-item Transliminality Scale validated that there is a single, linear Rasch (1960/1980) dimension underlying seven seemingly different psychological domains: hyperesthesia, (fleeting) hypomanic or manic experience, fantasy-proneness, absorption, positive (and perhaps obsessional) attitude towards dream interpretation, mystical experience, and magical ideation. Accordingly, Lange et al. (2000b) defined the transliminality variable that is proposed to describe this single dimension as "the hypothesized tendency for psychological material to cross thresholds into or out consciousness" (p. 594).

Several readers have contacted us to voice confusion over exactly how the scale should be administered and scored. This note intends to remedy such misunder-standings. Only 17 out of the original 29 items from Thalbourne's (1998) Transliminality Scale are scored with the new Rasch scheme reported in Lange et al. (2000b). However, as we mentioned in Footnote 5 of the *Consciousness and Cognition* paper (p. 614), the entire 29-item scale is administered in order to preserve the context of the 17 items that are scored. That is, simply administering the 17 items that are considered in the scoring scheme might elicit differential item functioning.

The appendix to this note gives the full Transliminality Scale (Form B), which is called the Revised Transliminality Scale when it scored with the Rasch scheme. One point is awarded to each "true" response, and no points are assigned to responses of "false." Only items #2, 3, 4, 5, 8, 9, 12, 13, 16, 18, 19, 20, 21, 22, 25, 26, and 29 are scored. Thus, the possible range of raw scores for the Revised Transliminality Scale is 0–17. Once a raw is obtained, it is subsequently converted to a Rasch-scaled score via the conversion table on p. 606 in Lange et al. (2000b). For example, a raw score of "1" translates to a Rasch scaled score of "15.9," while a raw score of "13" corresponds to a Rasch scaled score of "29.6." The Rasch-scaled scores are used for statistical analyses and to describe the mean scores and standard deviations for research populations. Higher scores correspond to higher degrees of transliminality. The Rasch reliability of the Revised Transliminality Scale is .82, and this translates to a KR-20 reliability coefficient of .85. Thalbourne (2000) found the full 29-item Transliminality Scale to have a test-retest reliability of .88 (N = 51, p < .001) over an average of fifty days, and further analysis on this same data set showed that the 17 items that are scored for the Revised Transliminality Scale have a test-retest reliability of .82 (p < .001).

Next, an erratum is in order. Lange et al. (2000a) reported an incorrect wording of item #22, which is one of the 17 items that is scored with the new Rasch scheme. We stated that item #22 corresponded to the statement, "At times I somehow feel the presence of someone who is not physically there." This wording actually belongs to item #23. The correct wording of item #22 is "While listening to my favorite music, in addition to feeling calm, relaxed, happy, etc., I often have a feeling of oneness with the music, or of being in another place or time, or vividly remembering the past." "Encounter experiences" such as item #23 consistently correlate with higher scores on the Revised Transliminality Scale (Houran & Thalbourne, 2001; Houran, Kumar, Thalbourne, & Lavertue, 2002; Houran, Wiseman, & Thalbourne, in press), but such experiences have not been validated as *core constituents* of the transliminality construct. Rather, transliminality only seems to facilitate or mediate these experiences.

Lange et al.'s (2000b) research on transliminality arguably provides an updated conceptual framework for the reinterpreting the psychological constructs discussed at length by Hunt et al. (2002). This might partly explain why the concept of transliminality has gained considerable widespread acceptance in a myriad of academic journals. For example, transliminality has been applied to research in abnormal psychology and psychiatry (Houran et al., 2002; Thalbourne, Houran, Alias, & Brugger, 2001), sensation and perception (Crawley, French, & Yesson, 2002), parapsychology (Houran & Thalbourne, 2001; Houran et al., in press; Storm & Thalbourne, 2001), and personality functioning (Thalbourne, 2000). Recent research efforts with the Transliminality Scale have been worldwide, and this has resulted in several translations of the scale. We know of Swiss-German, Italian, and Greek versions. Interested readers may contact the authors for more information on how to obtain copies of these unpublished translations.

## Appendix. The Transliminality Scale: Form B

Your Date of Birth: —/—/— Your Age: — Your Sex: M/F		
1. Horoscopes are right too often for it to be a coincidence.	T	F
2. At times I perform certain little rituals to ward off negative influences.	T	F
3. I have experienced an altered state of consciousness in which I felt that I became cosmically enlightened.	T	F
4. At the present time, I am <b>very good</b> at make-believe and imagining.	T	F
5. I have felt that I had received special wisdom, to be communicated to the rest of humanity.	T	F
6. I have sometimes behaved in a much more impulsive or uninhibited way than is usual for me.	T	F
7. I am fascinated by new ideas, whether or not they have practical value.	T	F
8. I have sometimes sensed an evil presence around me, although I could not see it.	T	F
9. My thoughts have sometimes come so quickly that I couldn't write them all down fast enough.	T	F
10. If I could <b>not</b> pretend or make-believe anymore, I <b>wouldn't be me</b> I <b>wouldnt be the same person.</b>	T	F
11. Sometimes I experience things as if they were doubly real.	Т	F
12. It is sometimes possible for me to be completely immersed in nature or in art and to feel as if my whole state of	T	F
consciousness has somehow been temporarily altered.		_
13. Often I have a day when indoor lights seem so bright that they bother my eyes.	T	F
14. I am convinced that I have had at least one experience of telepathy between myself and another person.	T	F

15. I am convinced that I am psychic.	T	F
16. I have experienced an altered state of awareness which I believe utterly transformed (in a positive manner) the way I looked at myself	T	F
17. I am convinced that I have had a premonition about the future that came true and which (I believe) was not just a coincidence.	T	F
18. I think I really know what some people mean when they talk about mystical experiences.	T	F
19. I have gone through times when smells seemed stronger and more overwhelming than usual.	T	F
20. I can <b>clearly feel again</b> in my imagination such things as: the feeling of a gentle breeze, warm sand under bare feet, the softness of fur, cool grass, the warmth of the sun and the smell of freshly cut grass.	T	F
21. A person should try to understand their dreams and be guided by or take warnings from them.	T	F
22. While listening to my favorite music, in addition to feeling calm, relaxed, happy, etc., I often have a feeling of oneness with the music, or of being in another place or time, or vividly remembering the past.	T	F
23. At times I somehow feel the presence of someone who is not physically there.	T	F
24. I am convinced that it is possible to gain information about the thoughts, feelings or circumstances of another person, in a way that does not depend on rational prediction or normal sensory channels.	T	F
25. For several days at a time I have had such a heightened awareness of sights and sounds that I cannot shut them out.	T	F
26. I sometimes have a feeling of gaining or losing energy when certain people look at me or touch me.	T	F
27. Now that I am grown up, I still in some ways believe in such beings as elves, witches, leprechauns, fairies, etc.	T	F
28. Sometime people think I'm a bit weird because my ideas are so novel.	T	F
29. When listening to organ music or other powerful music, I sometimes feel as if I am being lifted up into the air.	T	F

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