



# Loneliness through the Lens of Psychology, Neurology and Philosophy

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The issue of loneliness is making big news. And so it should. The over-riding concern by public-health authorities in the face of the Covid-19 threat is to contain the spread of the virus. And from this perspective alone, the solution is simple. Stop people occupying the same social environment. But this solution ignores the psychological consequences of involuntary social isolation, which reviewers Haslam et al. (2019) describe as ‘a killer.’ So, in order to avoid a coincident epidemic of induced psychopathology, a more complex solution is required, advised by an understanding of loneliness.

The starting-point for scientific understanding lies in defining the construct and agreeing on a valid and reliable form of measurement. An excellent and informed definition of loneliness has been provided by the Commissioner for Senior Victorians (2016) as “Loneliness is a subjective, unwelcome feeling of lack or loss of companionship or emotional attachment with other people” (p.46). Crucially, they note the difference between loneliness and Social Isolation, which is “an objective state of having minimal contact and interaction with others and a generally low level of involvement in community life” (Grenade and Boldy 2008, p. 9). They also note that the direct link between being alone and being lonely cannot be assumed. Some people are happy to be alone, while others can feel lonely despite the presence of other people.

So how can loneliness be measured? There are many scales that purport to measure the construct. Nine are described in the Australian Centre on Quality of Life (ACQoL) Directory of Instruments <http://www.acqol.com.au/instruments#measures>. Of these, probably the most popular is the UCLA Loneliness Scale (Russel et al. 1980) which has been cited over 4000 times. However, at 20 items it is far too long to measure a single-construct, and it does not factor reliably. A derivative and well-cited three item, short form (Hughes et al. 2004) asks:

*How often do you feel that you lack companionship?*

*How often do you feel left out?*

*How often do you feel isolated from others?*

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The extraction of these items from the original scale reveals the psychometric danger of assuming that all scales labelled by their originators as a ‘Loneliness scale’ measure the same construct. They clearly do not. For example, an item in the original 20 item version of the Russel et al. (1980) scale asks how much the respondent agrees “I am an outgoing person,” which is a classical measure of extraversion. Another item requests agreement with “I do not feel alone.” People are supposed to disagree with this if they feel lonely. But such disagreement confuses the objective reality (someone actually is alone) with the subjective feeling of loneliness (they are alone, but not lonely). [This also reveals the perils of asking negative questions]. Finally, and oddly, neither version of the scale asks “How often do you feel lonely?” which, conceivably, is a more valid measure of loneliness than the scales.

So, who gets to feel lonely? Much research has been devoted to the search for particular person characteristics which predispose people to loneliness, but to little avail. Instead, the contemporary conclusion is that loneliness can happen to anyone given the necessary inducing conditions (Cacioppo and Cacioppo 2018). This understanding is highly relevant to considerations of treatment. It is now well established that the treatment of loneliness by common sense methods (e.g. social skills training, and provisions for social support and social contact), is ineffective (Masi et al. 2011). Therefore, instead of treating the condition per se, treatment should target the provision of resources which are causing the condition to become manifest.

The primary resources required to treat or prevent loneliness, are likely very similar to those required for the homeostatic defence of SWB (Cummins 2017). They have been succinctly described as the Golden Domain Triangle (Cummins 2018), comprising a sufficiency of money, a purposeful activity, and an emotionally intimate relationship. Notably, and unfortunately, these are also the most challenging resources for treatments to provide.

From this description, several statements about loneliness from the perspective of psychology are obvious and do not require elaborate research confirmation. These include:

1. Being alone is not equivalent to being lonely.
2. Susceptibility to loneliness varies greatly between individuals. However, loneliness is more common among people with low resources. This especially applies to relationship resources (Haslam et al. 2019), but also to money adequacy and having a purposeful activity.
3. Different measures of loneliness have different levels of validity in measuring the construct. Thus, data from different scales are not necessarily equivalent.
4. People who are lonely will also, on average, experience higher levels of negative states, such as depression, anxiety, and stress. They will also experience lower levels of SWB and positive emotions. All of these variables will inter-correlate.
5. Simply inviting a ‘lonely’ individual to join a group or interact with others provides either minimal or transient relief from loneliness, particularly once this has become a chronic experience or cycle (Lim 2018; Masi et al. 2011).

All of the above are not only intuitive, but also have been empirically demonstrated in numerous studies. They do not need to be demonstrated again. Reviews that simply detail the relevant studies have no more than archival value unless their synthesis of

material results in a new insight. Perhaps such an insight may be gained through a cross-disciplinary investigation of the loneliness condition?

## Links to Neurobiology and Philosophy

The melding of psychological science (self-reported data) with biological measurement has intuitive appeal, but is fraught with difficulty. Each area has its own exquisite methodological and conceptual issues affecting validity, and few researchers are sufficiently informed about both area to devise scientifically clean studies. Worse, the measured interaction between psychological experience and biological functioning is almost always highly approximate and suppositious because the mechanism of the interaction is not understood. The result is the publication of multitudinous studies, which are little more than fishing expeditions in the hope of serendipity.

There are two other reasons to be cautious in advancing a biological approach to loneliness. The first concerns the use of sub-human animal models to explore the construct. As a reminder, the definition of Loneliness is “*a subjective, unwelcome feeling of lack or loss of companionship or emotional attachment with other people.*” This clearly indicates a strong cognitive element, in which the ‘feeling’ of loneliness is influenced not simply by being alone (that is the objective state) but by the implications of losing ‘companionship’ and ‘emotional attachment.’ Such implications will be vastly different depending on the level of cognitive processing the animal possesses. While a rat can surely appreciate ‘aleness,’ it is much less likely they can appreciate the difference between that state and ‘loneliness.’ So researchers using such animal models need to show clearly that they understand this limitation.

A second problem for such investigators comes from understanding that loneliness is not a trait (Cacioppo and Cacioppo 2018). Thus, in order for psychological-biological correlations to be valid, the measurement of both loneliness and the putative neurological concomitant must be made at about the same time.

If not neurobiology then maybe philosophy? Might the study of loneliness open a bridge between the named sciences and this ancient discipline? The following observations pertain: (a) lonely people remain lonely in the presence of other people; (b) loneliness is not a particular person characteristic, but a state which can be induced in anyone; (c) loneliness is associated with impaired emotion regulation (Lim et al. 2019); (d) loneliness is associated with low levels of the same key psychological resources as may also defeat SWB homeostasis (relationship intimacy, money sufficiency, and purposeful engagement); (e) loneliness and self-esteem are strongly negatively correlated (Ouellet and Joshi 1986), while loneliness and meaning in life have been biologically linked through resting-state fMRI functional connectivity (Mwilambwe-Tshilobo et al. 2019). Philosophers have a name for the conceptual space of this discussion, as existentialism.

A central plank in existentialist thought is authenticity (Flynn 2006). The proposition that each individual—not society or religion—is solely responsible for giving meaning to life and living it passionately and sincerely, or ‘authentically.’ The failure of authenticity is termed ‘Despair’, generally defined as a loss of hope. More specifically, despair is a loss of hope resulting from a breakdown in the defining qualities of one’s self or identity. If a person has nothing to rely on for their identity, they are unable to be what defined their being. They are lonely.

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