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The Self

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An independent academic psychologist, based in England, who has written extensively on different areas of psychology with an emphasis on the critical stance towards traditional ideas.

A complete listing of his writings at http://psychologywritings.synthasite.com/. See also material at https://archive.org/details/orsett-psych.

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1. SELF-CONTINUITY

Definitions of the self vary from William James (1890/1950) in the 19th century with "the sum total of all that [a man] can call his", to the 21st century and "the totality of interrelated yet distinct psychological phenomena that either underlie, causally interact with, or depend upon reflexive consciousness" (Sedikides & Gregg 2003) (both quoted in Sedikides et al 2023). A key element is the perceived continuity of the self over time - ie: self-continuity.

Self-continuity is "the subjective sense of connection between one's past and present selves (past–present self-continuity), between one's present and future selves (present–future self-continuity), or among one's past, present, and future selves (global self-continuity)" (Sedikides et al 2023 p333). Measures include the "Self-Continuity Index" (Sedikides et al 2015) (eg: "I feel connected with who I was in the past"), and the "Future Self-Continuity Scale" (Ersner-Hershfield et al 2009) (two circles (future self and current self) overlapping to various degrees).

Self-continuity can be viewed as a motivation in the construction of the self-concept. For example, the past-present self-continuity can be used be people to "strategically to fortify, or elevate, the favourability of their current self-view" (Sedikides et al 2023 p339). This includes distancing oneself from past failures and/or making harsh criticism of the past self in order to feel better about the present (improved) self. This idea is crystallised by "temporal appraisal theory", which also sees the use of present-future self-continuity for current self-enhancement (eg: distance from future negative self) (Sedikides et al 2023).

Self-continuity is consolidated by two set of "instigators" - situational, and intrapersonal (table 1.1) (Sedikides et al 2023).

Self-continuity is beneficial for the individual: "When one feels subjectively closer to their past (ie: higher past–present self-continuity), perhaps by representing it vividly in their imagination..., they will express more favourable attitudes, judgments, decisions, motivation, intentions, and behaviour in reference to objects linked to their past... Likewise, when one feels subjectively closer to their future self (ie: higher present–future self-continuity), perhaps by representing it vividly in their imagination..., they will express more favourable attitudes, judgments, decisions, motivation, intentions, and behaviour in

SITUATIONAL	INTRAPERSONAL
Transient states - eg: positive emotions and present-future self-continuity. Judgmental decisions - eg: optimism and belief in continuity of moral values. Metaphors - eg: "journey metaphor" of life associates with more continuity than partitioning of experiences.	Representation of family legacy - eg: "following in footsteps of family" and more continuity. Autobiographical memory - more positive view and more continuity. Nostalgia - "a sentimental longing for one's past" (Sedikides et al 2023 p341) and past-present continuity.

Table 1.1 - Two sets of instigators of self-continuity.

reference to objects linked to their future... Further, higher past–present and present–future self-continuity is associated with better psychological and physical health..." (Sedikides et al 2023 p342). For example, in a series of situations, Hershfield et al (2012) found that higher present-future self-continuity individuals were more likely to keep a promise about attending a future event, and less likely to lie or cheat in games.

In an experiment, Rutchick et al (2018) induced either high or low present-future self-continuity with a letter writing task to themselves in 20 years (high) or three months (low). Participants in the high condition were found to exercise more in the days following the experiment. This type of experiment has also been used with weight loss and diet, and planning for the future (eg: saving) (Sedikides et al 2023).

Other research has shown that (a) the main brain region involved in self-continuity is the ventromedial prefrontal cortex; (b) self-continuity is higher in older than younger adults; and (c) there are cultural differences (eg: East Asians are more likely to think of the self in the distant past when predicting the future than Westerners) (Sedikides et al 2023).

There is also "collective self-continuity". "People see their ingroups as traversing time. Collective self-continuity comprises both cultural continuity (ie: temporal persistence of norms, values, and custom) and historical continuity (ie: perceived interconnection between historical events and phases) of one's group — be it a family, an occupational organisation, a religious institution, a community, or a nation" (Sedikides et al 2023 p350).

The alternative to self-continuity is self-discontinuity (SD), where there is "a sense of disconnect from one's past or future self" (Sedikides et al 2023 p337). Threats to self-continuity include "low self-concept clarity [integration of aspects of the self], visuo-spatial perspective [first- or third-person view of self], ostracism, variety of self-expression, and taxing life circumstances (eg: unemployment, forced displacement, life changes). A common element of these examples is that they imbue one's self-concept with confusion, uncertainty, fragility, or negativity (ie: low self-esteem)" (Sedikides et al 2023 pp337-338).

The upshot of SD is discomfort and "psychological ill-being" (Sedikides et al 2023). For example, Sokol and Eisenheim (2016) found an association between lower self-continuity and greater depression, anxiety, stress, and suicidal ideation. Participants were asked to judge their similarity to the past self (10 years ago) and the future self (10 years ahead) using a range of circles overlapping in various ways. They also chose from twenty adjectives (half positive/half negative) as "me/not me" for the past and future selves.

"Paradoxically, self-discontinuity (ie: low past-present self-continuity) can confer behavioural benefits. The sunk cost bias is an example. This bias refers to the tendency to persist on an inferior course of action after investing substantial and irrecoverable resources on it (eg: effort, time, money). People experience negative emotions (eg: regret, guilt, wastefulness) at the prospect of abandoning their investments, and this sense of personal responsibility for their past behaviour contributes to perseverance of such behaviour" (Sedikides et al 2023 p346). Low past-present self-continuity decreases this bias. Higher SD has also been found to associate with changing addictive behaviours, as well as moral behaviours. "Participants who reflected on how they have fundamentally changed (low past–present self-continuity) rather than remained the same (high past–present self-continuity) were more likely to confess voluntarily to a prior misdeed and less likely to justify prior misdeeds, disregarding the possibility of a stain on their current moral character" (Sedikides et al 2023 p347).

Sedikides et al (2023) offered four strategies to reduce SD:

i) Autobiographical reasoning - eg: gaining insight from the past self (eg: "I am who I am today because I have learned from the mistakes of my past self").

ii) Nostalgia - SD has been found to be positively associated with negative nostalgia.

iii) Self-affirmation - Focusing on the positive aspects of the self, particularly after ostracism.

iv) High prior self-continuity - eg: strong belief that "I am the same person as I always was".

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2. PSYCHOLOGICAL WELL-BEING

2.1. INTRODUCTION

Psychological well-being is linked to cognitive decline in older adults (based on emerging evidence), But the relationship could be bidirectional. On the one hand, cognitive decline impacts psychological well-being negatively (eg: Sutin et al 2023), while, on the other, higher well-being reduces cognitive decline (eg: Boyle et al 2010) (Guo et al 2024).

Guo et al (2024) explored this relationship further focusing on particular aspects of psychological well-being in the form of purpose in life and personal growth using data from the "Rush Memory and Ageing Project" (MAP). This is a longitudinal study began in 1997 in the Chicago area (Bennett et al 2005). Guo et al (2024) concentrated on 910 cognitively healthy older adults in their 70s and 80s followed for fourteen years with annual assessments. The "Ryff Scales of Psychological Well-Being" (Ryff and Keyes 1995) (table 2.1) [1] was one key measure, and standardised cognitive testing was the other.

- I sometimes feel as if I've done all there is to do in life.
- I think it is important to have new experiences that challenge how I think about myself and the world.
- I judge myself by what I think is important, not by the values of others.
- In many ways I feel disappointed about my achievements in life.

(Source: Guo et al 2024 supplementary table 1)

Table 2.1 – Example of items from the "Ryff Scales of Psychological Well-Being".

[1] This has eighteen items covering six well-being components – self-acceptance, autonomy, environmental mastery, purpose in life, positive relations with others, and personal growth (Guo et al 2024).

During the follow-up period 265 individuals were diagnosed with mild cognitive impairment (MCI), and 89 of these individuals subsequently with dementia. This group had significantly lower psychological well-being scores than the cognitively intact adults. More specifically, Guo et al (2024) explained, "we found that psychological well-being declined more rapidly in individuals who went on to develop MCI compared with those who remained cognitively intact, resulting in a lower level of well-being two years before MCI diagnosis. Of the six components of psychological well-being examined, lower levels of purpose in life and personal growth were observed beginning 3 and 6 years before MCI diagnosis, respectively. After an MCI diagnosis, the slopes of well-being change did not significantly differ between those who did and did not develop dementia" (p5).

The researchers discussed the findings thus: "The mechanisms underlying the association between well-being and cognitive function are not well understood. It is possible that greater well-being and better cognitive function share protective factors. Participants with higher levels of well-being tend to have lower levels of depression, smoke less, and engage in more physical, mental and social activities, all of which have been identified as protectors against dementing disorders. However, after we further controlled for these possible factors, psychological well-being still declined faster among participants with incident MCI, which may suggest the independent predictive role of well-being for cognitive ageing" (p6).

The key strength of this study was the longitudinal nature of the data. But "the study population consisted of volunteers from communities who had a high level of education, which may introduce selection bias because of healthy volunteer effect. Moreover, most participants are White and female, which may limit the generalisability of our findings to other populations", Guo et al (2024 p6) admitted. The measurement of psychological well-being was limited to three items for each of the six components, though the "Ryff Scales of Psychological Well-Being" is commonly used.

2.2. HAPPINESS

The "World Happiness Report" (produced by the "United Nations Sustainable Development Solutions Network"), which rates life satisfaction of 150 countries, places Finland as number one. It is not the

wealthiest country in Europe, and there are long periods of cold and darkness in the winter (Robson 2022). So, happiness does not entirely correlate with wealth. In other words, the richest countries are not the happiest populations. Beyond the basic material needs, other factors like relationships, community, security, and equality influence happiness ratings (The leader 2022).

The "Easterlin paradox" (eg: Easterlin 1974), as it is called, shows that increased economic growth does not mean increased happiness. In other words, life satisfaction remains the same as gross domestic product (GDP) increases. "Economic growth only improves life satisfaction if it's associated with declining inequality and if it's associated with growing social trust" (Malgorzata Mikucka quoted in Robson 2022).

There is a problem in that happiness is "a squishy concept" (Robson 2022), and so difficult to measure. In terms of measures used, the "World Happiness Report" asks people to imaging themselves on a ladder where the lowest rung (0) is the worst possible life, and the top rung (10) the best possible life (Robson 2022). This is the "Cantril ladder" (Cantril 1965).

2.3. SELF-COMPASSION

In "The Keys to Kindness", Hammond (2022b) argued for self-compassion. "It means accepting that you are human and that, like everyone, you do your best but sometimes make mistakes" (Hammond 2022a p70). It is different to self-esteem (appendix 2A).

Individuals with low self-compassion favour self-criticism, in part through a fear of being kind to themselves, and such people tend to find it harder to part ordinary setbacks in life into perspective. Low self-compassion is associated with depression, and poor mental health (appendix 2B) (Hammond 2022a).

One longitudinal study (Lee et al 2021) found that self-compassion had an inverted-U shape with age (ie: lower in younger and older age groups).

"Fears of compassion" or "fears, blocks and resistances" (FBRs) to compassion have been noted (Gilbert et al 2011). "Fears" apply to self-compassion as well as compassion towards others (and receiving comparison from others), and "can relate to early shame experiences and attachment trauma (eg: where compassion triggers a grief response), valuing competitiveness (eg: perceiving compassion as a barrier to success), or misconceptions around the term 'compassion' (eg:

perceiving it as a low social rank position)" (Matos et al 2023 p3). "Blocks" are situational factors which stop an individual showing compassion, while "Resistances" "emerge when someone could be compassionate but chooses not to be because they believe it might be too costly for themselves or that there is no point in compassion" (Matos et al 2023 p4).

Matos et al (2023) explored the three types of compassion (for self, for others, and from others) and fears around them during the covid-19 pandemic. Over 4000 participants were recruited online from twenty-three countries. Data were collected at three points: April-May 2020 (Time 1), September-October 2020 (Time 2), and January-February 2021 (Time 3). Around eight hundred participants completed all three waves.

Two main measures were used in the survey:

a) "Compassionate Engagement and Action Scales" (CEAS) (Gilbert et al 2017) - self-compassion items eg: "I am accepting, non-critical and non-judgmental of my feelings of distress"; ""I think about and come up with helpful ways to cope with my distress".

b) "Fears of Compassion Scales" (FCS) (Gilbert et al 2011) - self-compassion items eg: "I feel that I don't deserve to be kind and forgiving to myself"; "I fear that if I become kinder and less self-critical to myself then my standards will drop".

Overall, self-compassion increased at Time 3, while fear of self-compassion declined. "Compassion for others increased at Time 2 and 3 for the general population, but in contrast, it decreased in health professionals, possibly linked to burnout" (Matos et al 2023 p2). Compassion from others increased at Time 3 also. The researchers concluded that "in a period of shared suffering, people from multiple countries and nationalities show a cumulative improvement in compassion and reduction in fears of compassion, suggesting that, when there is intense suffering, people become more compassionate to self and others and less afraid of, and resistant to, compassion" (Matos et al 2023 p2).

Geller et al (2019) used the FCS, specifically the "Fear of Compassion for Self" (FCSelf) sub-scale with 251 individuals with eating disorders. "Individuals with eating disorders (ED) have notoriously low levels of self-compassion... and self-compassion scores negatively

associated with poor body image, ED symptomatology, and depression" (Geller et al 2019 p2). The participants were recruited from a Canadian hospital specialising in ED treatment (and a control sample of 314 female undergraduates from a local university). The fifteen items of the FCSelf were rated on a five-point scale.

Two underlying factors emerged from analysis of the FCSelf scores:

1. "Meeting Standards" - concern about losing achievements (eg: ""I fear that if I develop compassion for myself, I will become someone I do not want to be").

2. "Emotional Vulnerability" - difficult feelings and avoidance (eg: "I would rather not know what being 'kind and compassionate to myself feels like'").

High FCSelf scorers (which signified low self-compassion) significantly positively correlated with ED and psychiatric symptom severity, and negatively correlated with quality of life.

The researchers admitted: "It is noteworthy that participants recruited for this research were primarily female and Caucasian, and had a lengthy illness duration" (Geller et al 2019 p5).

2.4. SELF-TRANSCENDENCE

Yaden et al (2017) began: "Under certain circumstances, the subjective sense of one's self as an isolated entity can temporarily fade into an experience of unity with other people or one's surroundings, involving the dissolution of boundaries between the sense of self and 'other'. Such transient mental states of decreased self-salience and increased feelings of connectedness are described here as self-transcendent experiences (STEs)" (p143).

Self-transcendence can be defined simply as "transient mental states of decreased self-salience and increased feelings of connectedness" (Yaden et al 2017 p144). Such experiences can make individuals feel less self-centred, and to act more generously (Craig 2022).

Yaden et al's (2017) definition includes two broad aspects - "(a) an 'annhilational' component, which refers to both the dissolution of the bodily sense of self accompanied by reduced self- boundaries and self-salience; and (b) a 'relational' component, which refers to the sense of connectedness, even to the point of

oneness, with something beyond the self, usually with other people and aspects of one's environment or surrounding context" (pp144-145).

At the same time, these researchers explained that their definition did not include prioritising others over the self (though this may be an upshot of the STE), making errors over specific bodily boundaries (eg: "phantom limb") or "confusions of reference" (eg: mistakenly tying someone else's shoe instead of own), and the practices and activities that may produce STEs. "While such practices, rituals, and activities capable of eliciting STEs are clearly important for the study of these mental states, they would not themselves be considered STEs" (Yaden et al 2017 p145).

Yaden et al (2017) proposed a spectrum of intensity from "the routine (eg: losing yourself in music or a book), to the intense and potentially transformative (eg: feeling connected to everything and everyone), to states in between, like those experienced by many people while meditating or when feeling awe" (p143). The varieties of STE include mindfulness, flow, peak or "mystical" experiences, self-transcendent positive emotions like love or awe, and, on the negative side, depersonalisation (Yaden et al 2017) (table 2.2).

EXPERIENCE	MEASUREMENT EXAMPLE
Mindfulness	"I experience myself as separate from my changing thoughts and feelings" (Toronto Mindfulness Scale; Lau et al 2006)
Flow	"I was not worried about what others may have been thinking of me" (Flow State Scale; Jackson and Marsh 1996)
Awe	"I feel small or insignificant" (Piff et al 2015)
Peak	"I have had an experience that made me extremely happy and, at least temporarily, helped me to appreciate wholeness, unity, and integration to a greater degree than I usually do" (Peak Scale; Mathes et al 1982)
Mystical	"I have had an experience in which I realised the oneness of myself with all things" (Mysticism Scale; Hood 1975)

Table 2.2 - Varieties of STE (according to Yaden et al 2017).

"Flow" and "mindfulness" are two examples of self-transcendence that can help cope with stressful situations. "Flow is a state in which people become

absorbed in an enjoyable activity, such that they become blind to their external environment and unconcerned about the self or the passage of time. To reach a flow state, people must engage in an intrinsically rewarding activity that is just challenging enough to match one's skill level and that provides clear goals and feedback" (Sweeny et al 2020 p2). Mindfulness, on the other hand, is "a state of being aware of and attentive to one's current internal and external experience, focusing on the present moment and observing without judgment" (Sweeny et al 2020 p2).

Situations of uncertainty can be stressful as in the covid-19 pandemic. Sweeny et al (2020) investigated flow and mindfulness during the pandemic in a large sample in China in February 2020. Over 5000 adults were recruited online via "WeChat" (nearly three-quarters being female). The majority were college students, and the mean age was 21 years.

Flow in the past week was measured by the (formally unvalidated) five-item "Short Flow Scale" (eg: "I felt very interested in what I was doing"; "I felt unaware of myself"; "I felt very absorbed in what I was doing"). Each item was scored between 1 ("not at all") and 7 ("very much"), giving a total range of 5-35, where a higher score was higher flow.

Mindfulness in the past week was measured by the twelve-item "Cognitive and Affective Mindfulness Scale-Revised" (CAMS-R) (Feldman et al 2007) (eg: "It is easy for me to concentrate on what I am doing"; "I try to notice my thoughts without judging them"). Each item was scored between 1 ("rarely/not at all") and 4 ("almost always"). A higher score meant higher mindfulness (total range 12-48). Other measures in the survey included quarantine length, worry and emotions, depression and anxiety symptoms, loneliness, and demographic variables.

Overall, higher flow score was associated with positive emotions, and higher mindfulness score with better well-being (table 2.3). "However, flow — but not mindfulness — moderated the link between quarantine length and well-being, such that people who experienced high levels flow showed little or no association between quarantine length and poorer well-being. These findings suggest that experiencing flow (typically by engaging in flow-inducing activities) may be a particularly effective way to protect against potentially deleterious effects of a period of quarantine" (Sweeny et al 2020 p1).

The study was cross-sectional and the data correlational, which limited the ability to establish causality. As the researchers admitted, "it is possible

POSITIVE CORRELATION	NEGATIVE CORRELATION
Positive emotions Healthy behaviour (eg: eating fruit and vegetables; exercise)	Negative emotions Unhealthy behaviour (eg: smoking; eating junk food) Depression Anxiety Loneliness

(Source: Sweeny et al 2020 table 2)

Table 2.3 - Significant correlations with flow and mindfulness.

that some relationships are reciprocal, such that experiencing distress disrupts people's ability to find flow and remain mindful, or that we failed to assess relevant third variables" (Sweeny et al 2020 p8).

The researchers also admitted that "a large majority of our sample was not (yet) in quarantine at the time they completed the survey, although presumably all of our participants were keenly aware of the growing health crisis in their country and experienced significant disruptions to their lives. Ideally, we would have followed participants longitudinally as they passed in and out of quarantine restrictions, or at least had more even coverage across various lengths of quarantine. Furthermore, our sample was skewed toward relatively educated participants (nearly all had a Bachelor's degree), given the nature of the data collection strategy" (Sweeny et al 2020 p9).

The study involved a large sample size, and was undertaken at a significant time in history.

2.5. APPENDIX 2A - SELF-COMPASSION VS SELF-ESTEEM

Leary et al (2007) commented: "The process by which self-compassion protects people against stressful events is presumably different from that of its more familiar cousin, self-esteem. Whereas self-esteem is associated with positive feelings about oneself and believing that one is valued by others..., self-compassion is an orientation to care for oneself. Not surprisingly, self-compassionate people tend to have high self-esteem (Neff 2003b), presumably because reacting kindly rather than

critically toward oneself promotes positive self-feelings. However, the positive self-feelings that characterise self-compassionate people do not appear to involve the hubris, narcissism, or self-enhancing illusions that characterise many people who possess high self-esteem" (p887).

Leary et al (2007) undertook five studies to investigate self-compassion, self-esteem and reactions to unpleasant events.

Study 1

One hundred and seventeen US psychology undergraduates firstly completed the SCS, and then over the next three weeks, in response to random emails, they recalled the worst thing that had recently happened to them that was their fault or not their fault. The reactions to these events were also measured.

Self-compassion score predicted the emotional and cognitive response to the unpleasant events. "For example, self-compassion was inversely related to thinking that one has bigger problems than other people and that one's own life is more screwed up than other people's but positively related to believing that the negative event was not any worse than what other people experience" (Leary et al 2007 p891).

Study 2

This study used standardised negative events (eg: getting a poor grade) with 123 more US psychology students. Participants were asked to rate how they would feel in such a situation on various scales, after completing the SCS.

High self-compassion was associated with less catastrophising (eg: "This is awful") and personalising (eg: "I am such a loser"), and more equanimity (eg: "Everybody goofs up now and then"). On all three hypothetical scenarios, self-compassion score significantly negatively correlated with negative emotion scores.

Study 3

In this experiment, 66 US psychology students had to give a three-minute video recorded talk about themselves

before randomly receiving positive or neutral feedback about their presentation. Scales were completed measuring the emotional and cognitive responses to the feedback. The SCS had been completed some weeks previously.

There was a difference in response to the type of feedback based on low or high self-compassion. "For example, participants low in self-compassion attributed positive feedback more to themselves but neutral feedback less to themselves, but people high in self-compassion reacted more similarly to positive and neutral feedback. These patterns suggest not only that self-compassion buffers people against the psychological impact of negative events but also that it more generally attenuates reactions to both positive and negative events" (Leary et al 2007 p896).

Participants had also previously completed a measure of self-esteem, and self-esteem and self-compassion interacted in terms of the reaction to the feedback. "Participants who were low in both self-esteem and self-compassion had the most negative reactions to the neutral feedback, but high self-compassion attenuated these effects. Among participants with low self-esteem who received neutral feedback, those with higher self-compassion were less upset and more accepting of the feedback. Among participants with low self-esteem, higher levels of self-compassion were also associated with lower negative affect. Self-compassion may be beneficial when coping with negative interpersonal events, and a self-compassionate mindset may be particularly important for people with low self-esteem" (Leary et al 2007 p896). The approximate mean score for negative affect for low self-compassion and low self-esteem participants in response to the neutral feedback was 25, but closer to five for high self-esteem and low self-compassion scorers.

Study 4

This investigated self-compassion and a potentially embarrassing situation with 102 more psychology students. Participants were asked individually to make up a children's story which began, "Once upon a time, there was a little bear...", while being filmed. Then they watched the video of themselves or another participant and rated the performance. Finally, participants rated their feelings about the event using nine adjectives (eg: "awkward", "confident"). The SCS had been completed several weeks previously.

Low self-compassion scorers rated their less video

less positively (than others' ratings of them), and felt worse about the experience than high self-compassion scorers.

Study 5

This experiment, involving 115 psychology undergraduate students, investigated whether self-compassion could be altered. Firstly, participants recalled a negative event from their life that involved failure, humiliation or rejection. Then the participants were randomly divided into four groups:

i) "Self-compassion induction" - To think and write about showing kindness and understanding towards themselves.

ii) "Self-esteem induction" - Write about their positive characteristics.

iii) "Writing control" - Write about the aforementioned negative event.

iv) "True control" - No writing condition.

The dependent measures were sixteen ratings (of four emotions - happiness, sadness, anger, and anxiety) about their feelings at that point in time. The SCS had been completed previously as in other studies.

The self-compassion induction led to less negative emotion scores than the other conditions, especially for individuals low in self-compassion on the SCS.

Leary et al (2007) summed up the overall findings of the five studies: "Self-compassion was associated with lower negative emotions in the face of real, remembered, and imagined events and with patterns of thoughts that generally facilitate people's ability to cope with negative events" (p901). The researchers proposed three possible reasons for the findings:

a) High self-compassion scorers judge themselves less harshly (and more accurately) than low scorers.

b) High scorers are less affected by outcomes of events, "presumably because they respond in a kind and accepting manner toward themselves whether things go well or badly. In contrast, people low in self-compassion may

feel good about themselves primarily when life treats them well, for example, after they have succeeded or received positive feedback" (Leary et al 2007 p901).

c) High scorers think about negative events in a way that leads to less negative impact (eg: less ruminating; less generalising).

The studies enjoyed the benefits of the experimental method in that the researchers could control variables, but there were general limitations including the artificial nature of some tasks, and the use of US psychology undergraduates as participants.

The SCS was completed weeks before the specific studies in order to guard against participants guessing the purpose of the study (and the risk of demand characteristics). That is not to say that participants did not realise the focus of the study.

All ratings of emotions involved five- or seven-point scales in order to produce quantitative data. Some feelings may have been expressed better with qualitative measures.

Table 2.4 lists a key specific strength and weakness of each study.

2.6. APPENDIX 2B - SELF-COMPASSION AND MENTAL HEALTH

Self-compassion and negative mental health/ psychopathology are negatively correlated in adult samples of clinical and non-clinical origin, and self-compassion is also a "buffer" against negative life events (Marsh et al 2018). Similar results had been found for adolescents.

Marsh et al (2018) undertook a meta-analysis of studies of self-compassion and psychological distress among 10 to 19 year-olds (and finding nineteen relevant studies published between 2009 and 2016). An overall correlation of r = -0.55 was found for self-compassion and psychological distress (specifically, anxiety, depression, and stress). in meta-analysis terms, this was "a large effect size" (Marsh et al 2018 p1011). The researchers concluded that the findings "replicate those in adult samples, suggesting that lack of self-compassion may play a significant role in causing and/or maintaining emotional difficulties in adolescents" (Marsh et al 2018 p1011).

However, there was heterogeneity in the studies, with four rated as good methodological quality, but four

STUDY	STRENGTH	WEAKNESS
1 - Report events over three weeks	A number of ratings over three weeks (longitudinal method)	Did the participants approach each rating in the same mood etc?
2 - Hypothetical events	Three standardised scenarios that participants could face at university	Had to rate how they imagined they would feel (particularly if they had experienced such event), and this is not the same as feeling that way
3 - Short presentation about themselves	No use of negative feedback because of ethical concerns	An artificial situation - three-minute video recorded talk about the self
4 - Invent children's story	Each story was rated by the individual themselves, and by others to give a more objective comparison	Artificial task
5 - Inducing self-compassion change	Four conditions, including two different control groups	How well the participants could recall a negative event, and then think and write as instructed

Table 2.4 - Key strength and weakness of each study by Leary et al (2007).

as low (and the reminder as moderate). There are a number of key methodological issues with the studies, including:

i) All studies used the "Self Compassion Scale" (SCS) (Neff 2003b), which is based on Neff's (2003a) three dimensional model of self-comparison: self-kindness vs critical judgment, common humanity vs isolation, and mindfulness vs over-identification. The SCS has 26 items, and established reliability and validity. There are shorter and different versions that were used (eg: SCS-A; SCS-SF (short form)).

ii) Samples - Three studies were male only.

iii) The measures of psychological distress varied, but most were validated. Also whether single or multiple measures were used.

iv) Control of potential confounders (eg: socio-economic status) - Eight studies did not give enough information for Marsh et al (2018) to know if this had taken place in data analysis.

v) The cross-sectional design was common, and this

does not allow researchers to establish causality. Remembering the maxim that "correlation is not causation".

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3. MALIGNANT SELF-REGARD

"Malignant self-regard" (MSR) was described by Huprich and Malone (2022) as "a self-representation that encompasses the shared features of depressive personality disorder, masochistic/ self-defeating personality disorder, depressive-masochistic personality, and vulnerable narcissism" (p226). It is "characterised by underlying self-defeating/masochistic tendencies, harsh inner criticism, unrealistic self-standards and strivings, preoccupations with guilt, and disavowed needs for care and approval" (Huprich and Malone 2022 p226) (appendix 3A). The "Malignant Self-Regard Questionnaire" (MSRQ) (Huprich 2014) (table 3.1) (appendix 3B) was developed to measure it.

MSR as used today is attributed to Huprich (2014), though the roots are earlier (eg: "depressive-masochistic personality"; Kernberg 1984), including Freud's work in the early 20th century (eg: "moral masochism"; Freud (1924/2001)) (Huprich and Malone 2022). Simplistically, the psychodynamic explanation is "a 'need for punishment' emanating from unconscious feelings of guilt" (Huprich and Malone 2022 p227). In terms of more recent psychiatric diagnoses, there is "self-defeating personality disorder", included in DSM-IIIR (APA 1987), but removed in DSM-IV (APA 1994) (Huprich and Malone 2022).

Huprich and Malone (2022) emphasised the "vulnerable narcissism" of MSR. The narcissism is seen in a grandiose sense of self, for instance, but different to narcissistic personality disorder is the presence of guilt, self-criticism, and self-defeating behaviour at the same time.

- I do not like it when people doubt or question my intentions.
- It seems as if I have more than my share of negative things that happen to me.
- Though I try my best, I can feel at times like what I do is just not good enough.
- Sometimes I believe that others will not see my accomplishments as being deserved.
- Hearing good things about myself embarrasses me.

(Source: Huprich and Malone 2022 table 1 pp228-229)

Table 3.1 – Items from the MSRQ.

The "trans-theoretical model of personality" (Mayer 1988) can be applied to MSR. This sees five major sub-divisions to personality (Huprich and Malone 2022):

i) "Self-system" (develops a sense of self and maintains self-esteem) – High MSRQ scorers "see themselves ad the problem, especially in interpersonal disputes, leading to chronically low self-esteem" (Huprich and Malone 2022 p232).

ii) "Thinking system" (cognitive aspects) – MSR leads to pessimistic, perfectionist, and self-focused thinking.

iii) "Affect system" (regulating emotions) – MSR has been found to be associated with depression, and neuroticism.

iv) "Interpersonal (relational) system" – Difficult relationships as the MSR individual is fearful of perceived criticism, but covertly desiring recognition from others.

v) "Self-awareness system" (regulates the other systems) - Huprich and Malone (2022) explained: "MSR poses a unique challenge to the self-awareness system. On the one hand, people higher in MSR are keenly aware of themselves, to the extent of being obsessively self-focused in their cognition, relations, and emotions. This is not to say that they are fundamentally selfish; on the contrary, as evidenced by strong associations between MSR and self-sacrificing (r = .53), those higher in MSR seem to make genuine efforts toward being selfless, unrelated to how others may perceive those efforts. On the other hand, their hypersensitive self-focusing tendencies obfuscate a higher-order awareness of their self-defeating patterns, needs, and perfectionism. Therefore, their ability to monitor and adjust their systems in a meta-cognitive fashion is impaired. Those higher in MSR often reject their own needs for approval, view their self-inflicted sufferings as justified, and avoid analysing their perfectionistic strivings" (p234).

Huprich and Malone (2022) argued that, though MSR is "a relatively new construct", it has strong "measured reliability and validity", and "its clinical utility appears to be found across a wide range of treatment populations" (p234). However, there are issues, including how MSR relates to more established personality disorders

that appear in diagnostic classification systems like DSM.

In summary, Huprich (2014) outlined core MSR features (listed in Huprich and Malone 2022) as:

- (1) a proclivity to experience persistent, treatment-refractory depression;
- (2) a preoccupation with feeling inadequate, shameful, and guilty;
- (3) a tendency to harshly criticise and debase the self;
- (4) a hypersensitive focus on the self and its performance relative to others;
- (5) a global sense of pessimism;
- (6) perfectionistic tendency in achievement settings;
- (7) approval and acceptance seeking;
- (8) self-defeating/masochistic tendencies;
- (9) disavowed and often self-directed aggression.

In a few words, the overarching construct of MSR can be summed up as "experiencing frustration and disappointment with others and attributing it toward the self in a personally harmful way" (Lengu et al 2015 p801).

APPENDIX 3A – GUILT

Mancini and Gangemi (2021) distinguished between "deontological guilt" and "altruistic (interpersonal) guilt". The former is "linked to the transgression of an internalised moral norm even in the absence of a victim, while altruistic guilt is related to the perception of damaging another person through actions, omissions, or simply by one's own good fortune" (Pedone et al 2023 pp288-289). Kugler and Jones (1992) added self-hate as another type of guilt. "Self-hate describes the feeling of being inherently wrong, bad, inadequate, and not deserving of acceptance or protection. Self-hate guilt involves a specific negative representation of oneself, and thus overlaps with clinical descriptions of depressive personalities" (Pedone et al 2023 p289).

Pedone et al (2023) found that MSR was significantly associated with all forms of guilt measured in their study with over 750 non-clinical participants.

APPENDIX 3B – MSRQ

With over six hundred US undergraduates, the MSRQ score was found to correlate with measures of self-defeating, depressive, and vulnerably narcissistic personality (Huprich and Nelson 2014). Lengu et al (2015) confirmed this finding with two more samples of US students (over 1700 individuals).

Lloveras and McDermut (2024) used the MSRQ (among other measures) with a sample of 108 stand-up comedians in New York (and a comparison of 99 US adults from the general population). The 52-item version of the MSRQ was used.

The comedians had a significant higher score than the adults from the general population. Items related to the desire for approval, perfectionism, and hypersensitive self-focus were particularly higher, along with those for pessimism, feelings of inadequacy, and anger.

Cause and effect could not be established. One possibility is that the MSR characteristics propel individuals into stand-up comedy. "An alternative explanation is that the nature of the profession might cause comedians to become more concerned about being approved of and preoccupied by whether other people appreciate their talents" (Lloveras and McDermut 2024 p4).

The samples were opportunistic and volunteer.

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4. SELF-AWARENESS/META-COGNITION

4.1. OVERVIEW

Self-awareness or meta-cognition is "literally, the ability to think about our own thinking" (Fleming 2021 p36). Fleming (2024) emphasised the importance of confidence in relation to metacognition, and specifically, "propositional confidence" (Pouget et al 2016) ("a feeling of surety about one's abilities, judgments, or ideas"; Fleming 2024 p244).

The simplest way to measure meta-cognitive judgments is to compare ratings of confidence about an estimate (eg: the number of dots on a briefly shown screen) with actual performance. The upshot is "meta-cognitive sensitivity" (Fleming and Lau 2014), where high scorers are more confident when right and less confident when wrong. Low scorers show "meta-cognitive bias" (or calibration or over-confidence) - ie: a general level of confidence about judgments irrelevant of accuracy (Fleming 2021). Individual differences in confidence and meta-cognitive sensitivity can be described as a "meta-cognitive fingerprint" (Fleming 2021).

Hoven et al (2019) pointed out: "Producing accurate confidence judgments is an individual ability, which seems stable across different sensory modalities, time-points, and across cognitive domains" (p1).

Propositional confidence can occur in different cognitive domains. For example, in perception (eg: the correct orientation of a shape), knowledge/memory (eg: about a factual piece of information like the birth date of Beethoven), and ability (eg: a sporting skill like making a putt) (Fleming 2024) (table 4.1).

4.2. AWARE AND UNAWARE

"Subjective cognitive decline" (SCD) is a major reason for older adults seeking medical attention in memory clinics. "The presence and the severity of complaints, however, do not necessarily represent a direct indicator of the objective level of performance, nor of the individual level of awareness. Severe complainers can achieve normal cognitive performance as

DOMAIN	TEST
Memory	Verbal memory task – learn a list of words and later report confidence about accuracy of recall or recognition
Perception	Perceptual decision-making task – presented with two groups of dots and must rate confidence in accuracy of spotting larger group
General knowledge	Multiple choice general knowledge questions and confidence in accuracy of answers

(Source: Hoven et al 2019 table 1)

Table 4.1 – Ways of testing different domains of meta-cognition and confidence.

they underestimate their capabilities, while others with minimal or no complaints may actually overestimate their abilities" (Cappa et al 2024 p6623). Approximately 20-30% of individuals reporting SCD show "preserved objective performance" (Cappa et al 2024 p6623).

SCD suggests self-awareness or meta-cognition. Loss of self-awareness is a characteristic of Alzheimer's disease, so the neural mechanisms of meta-cognition are important. Theories tend to see meta-cognition as global or domain specific (ie: different types), or a combination of both (eg: cognitive awareness model; Morris and Mograbi 2013) (Cappa et al 2024). Areas of the prefrontal cortex are involved in meta-cognition in neuroimaging studies (Cappa et al 2024).

"A unique feature of brain diseases is that they affect the same organ that is responsible for subjective awareness, including awareness of cognitive performance. This may lead to a 'decoupling' between symptoms and subjective awareness. The fact that brain diseases can result in defective awareness of functional impairment is well known in clinical neurology and is called 'anosognosia'" (Cappa et al 2024 p6625). It is possible that individuals being aware of their cognitive decline will show overconfidence in the accuracy of their judgments. This has been described with the concept "awareness of cognitive decline".

In one longitudinal study (Wilson et al 2015), for example, a sharp decline in memory awareness was found two and a half years before dementia onset (Cappa et al 2024).

Cappa et al (2024) summed up in conclusion: "Overestimation of cognitive decline is common in healthy ageing and functional cognitive disorder, while over-

estimation of objective performance may indicate a higher risk of AD [Alzheimer's disease]" (p6629).

Abnormalities in confidence judgments (ie: over- and under-confidence) are evident in psychiatric disorders, according to a review by Hoven et al (2019). They found eighty-three studies covering obsessive-compulsive disorder (OCD), schizophrenia, addiction, anxiety, and depression. There were differences between disorders in terms of over- and underconfidence. The strongest relationship was found for OCD, particularly checking behaviours, and low confidence, while there was overconfidence associated with schizophrenia. In the latter case, studies found "increased confidence in errors resulting in a decrease of discrimination and meta-cognitive sensitivity. This diminished discriminatory ability between correct (real) and incorrect (imagined) situations fits core schizophrenia symptoms such as delusions and hallucinations..." (Hoven 2019 p14). Concerning the other disorders, there was "suggestive evidence for increases/decreased confidence in addiction and anxiety/depression, respectively" (Hoven et al 2019 p1).

A number of questions remained unanswered for the researchers including, "Are these abnormalities closely linked or even underlying psychiatric symptoms? Are they a result of the disorder or perhaps only a byproduct without any significance for symptomatology?" (Hoven et al 2019 p14). This means that the direction of causation is "not unequivocal" (Hoven et al 2019 p14).

Hoven et al (2019) highlighted another issue: "Confidence is not a unitary construct, since confidence abnormalities are differently expressed in various contexts, and the role of context in confidence abnormalities should be further identified. For example, it is possible that confidence abnormalities aggravate in a symptom-related context. For instance, a gambler might be overconfident in general, but show an even increased overconfidence during gambling" (p14).

The studies in the review had two related methodological problems according to the reviewers. Firstly, the measurement of confidence, particularly in a bias free way. Secondly, studies "did not account for performance differences between groups of interest. Performing better at a task leads to an increase in confidence, and there is growing evidence that confidence judgments guide future behaviour. It is thus crucial to control for performance differences to isolate effects in confidence" (Hoven et al 2019 p15).

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5. INNER VOICE

5.1. INTRODUCTION

Williams (2022) asked "What was the last thing you said to yourself in your head? A warm word of encouragement or a scathing put-down?" (p47). She answered herself that it was "aargh!" as she procrastinated when work needed doing.

Puchalska-Wasyl et al (2008) categorised the inner voice into four types of dialogue partner – "faithful friend", "ambivalent parent", "proud rival" and "helpless child". Puchalska-Wasyl (2016) described them thus: "Faithful friend is a warm and caring interlocutor, full of love and at the same time strong, thanks to the bond with the author of internal dialogues. Ambivalent parent is a loving figure, although often critical of the person in whose internal dialogues he or she appears. Proud rival is autonomous, self-confident, and self-efficacious, and often has a sense of superiority. Helpless child awaits help or has lost hope for it, plunging into a sense of loneliness and helplessness. Thus, he or she seems to epitomise a loser" (p201).

5.2. LANGUAGE

Orvell et al (2022) focused on the use of the pronouns "I", "you", and "we" to "simultaneously provide insight into how a person is conceptualising the self; signal a particular stance to the addressee(s); and evoke different perspectives for both the speaker and addressee(s)" (p2).

Interestingly, the increased use of "I" in Facebook posts (relative to the average) was associated with a later diagnosis of depression (Eichstaedt et al 2018). While poets who committed suicide used more first-person singular pronouns in their poems than other poets (Stirman and Pennebaker 2001).

"Something as subtle and ordinary as first-person pronoun use, then, provides a window into the extent to which a person is turning inward, reflecting their relative separation from those around them. However,

people can also shift away from their self-focused perspective to a broader one, that is shared with others, through their usage of personal pronouns. The clearest example of how this might occur involves shifting from the first-person singular pronoun 'I' to the first-person plural pronoun 'we'. Whereas, 'I' reflects only the perspective of the individual who is speaking, 'we' necessarily connotes a shared experience between the speaker and another individual(s). In this way, pronouns can also reveal the extent to which a person sees themselves as connected to others" (Orvell et al 2022 pp2-3).

Individuals can also use "you" in relation to themselves (known as "self-talk 'you'") as in saying, "you can do it" to themselves, or in describing their individual experience thus, "you are full of joy" (known as "generic-you") (Orvell et al 2022).

5.3. ANAURALIA

Hinwar and Lambert (2021) proposed the term "anauralia" to describe individuals who report no inner voice. For example, one person said: "I don't have the experience people describe of hearing a tune or a voice in their heads" (in Watkins 2018 quoted in Hinwar and Lambert 2021). These individuals often also experience "aphantasia" (Zeman et al 2015) (a lack of visual imagery).

Hinwar and Lambert (2021) surveyed 128 adults from three "Aphantasia" Facebook groups, psychology undergraduates in Auckland, New Zealand, and social media contacts of the researchers. The participants completed measures of auditory and visual imagery (eg: "Bucknell Auditory Imagery Scale-Vividness"; BAIS-V; Halpern 2015). Overall, 34 individuals were classed as aphantasic and 29 as anauralic, and the "two groups overlapped to a large extent" (Hinwar and Lambert 2021 p3).

There was an overall correlation of level of visual and auditory imagery of 0.83. Halpern (2015) had found a correlation of 0.62 in a sample of 76 college students. Hinwar and Lambert (2021) admitted: "Variations in survey methodology make direct comparisons between the current results and earlier survey-based findings difficult" (p5).

The study relied on self-reports of "internal phenomenal experience" (Hinwar and Lambert 2021 p5).

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6. SELF-NARRATIVE

6.1. OVERVIEW

"Recent research shows that the narratives we tell ourselves about our lives can powerfully shape our resilience to stress. People who generate tales of struggle and redemption from their own lives appear to have much better mental health. You could describe this as the flawed hero effect. Better yet, psychologists have found that spinning our memories into a well-told life narrative, and viewing our future as an extension of this story, can help us achieve our aspiration for self-improvement" (Robson 2023 p33).

Bluck et al (2005) outlined two functions of autobiographical memories and narratives – "helping people understand who they are and informing and guiding thoughts and behaviours" (Jennings and McLean 2013 p317). The former can be seen in the drawing of connections between previous events in order to demonstrate stable characteristics, while "memories of past mistakes or failures often become touchstones used to motivate future attempts at excellence or success..., and memories of past experiences can play an important role in guiding subsequent decisions" (Jennings and McLean 2013 p317).

Forming a coherent, meaningful narrative of memories can be aided by "expressive writing", particularly for stressful events, and as a way to improve mental health (eg: Pennebaker et al 1997).

Much of the research has been undertaken with students, as in Danoff-Burg et al (2010). This experiment involved 98 US psychology undergraduates at one university, who were divided into three groups – narrative writing, standard expressive writing, or control writing. The standard expressive writing group was instructed to "let go and express [their] deepest thoughts and feelings" concerning a personally stressful or traumatic event, while the narrative writing group had added instructions of "a story told about a specific event, or sequence of events, that the storyteller, or

narrator, experienced. The narrator paints a picture for the reader, describing the circumstances (who, when, what, where, why, and how) of the story as a foundation for connections to be made". The control writing group was instructed to write a factual description of their house. There were two 20-minute writing sessions, separated by two days, and one month later, measures of mental health and stress were taken.

Both writing groups had significantly lower depression, and perceived stress scores than the control group. The two writing groups did not vary. The self-rating of the writing as more emotional, and having greater narrative structure (as rated by independent judges) predicted lower depression and perceived stress scores.

6.2. THREATS TO THE SELF

The "storying of personal experience", as Jennings and McLean (2013) called it, is important "as people sometimes encounter situations that create a contradiction between their current thoughts and behaviours and their established understanding of who they are. Thus, having some anchor that moors a person to his or her self understanding, even when faced with contradictory evidence, would be helpful for navigating life's unfolding of self-relevant feedback" (p317).

One model of how individuals deal with self-contradictory feedback is Burke's (1991) "Identity Control Theory". Individuals seek to control the environment in that they seek out self-verifying situations. "However, people cannot always control their environment, experiences, or social feedback, thus opening the door to episodes of self-concept threat. In these situations, people must decide how to manage this threat. On one hand, they may dismiss the situation as irrelevant, and refuse to let it inform their self-concept... However, if they are unable to deny that the situation has some bearing on who they are, then people will attempt to demonstrate that the source of the discord is the situation and not their self-concept... There are many ways to 'blame the situation'; however, using self stories as counter examples would be particularly strategic, as it would show that in other situations, one's self-concept was verified" (Jennings and McLean 2013 p318).

Jennings and McLean (2013) used false feedback to

suggest that participants were prejudiced against African Americans to investigate the "repair strategies" used by individuals whose self was based on not being prejudiced. The participants were 439 non-African American US psychology undergraduates who first of all completed a survey on "acceptance of people who are different", and a measure of self-esteem.

As the participants looked at various pictures, their arousal level was measured. False feedback of high arousal was presented as evidence of prejudice to the participants. A measure of self-esteem was taken next. After this came the the "repair task", where participants were assigned to one of five conditions:

i) Threat-specific story – Write a story about an event in their lives showing that they were a tolerant person.

ii) High-point story – Write about an especially positive experience of the self.

In both writing conditions the stories were rated for unsupported subjective assertions.

iii) Threat-specific affirmation statements – Twenty statements about tolerance (eg: "I avoid relying on stereotypes when interacting with others") rated on a five-point scale (from "very much unlike me" to "very much like me").

iv) General affirmation statements – Twenty general positive statements (eg: "People in my life feel that I am a person that can be trusted").

v) Distraction task (control group) – Count the number of vowels in a paragraph of text.

Finally, participants completed a measure of self-esteem.

All participants showed a decline in self-esteem from baseline to post-false feedback, and then an increase after the repair strategy, but not to baseline levels. There were differences, however, in the "self-esteem rebound" depending on the repair strategy condition. "General high-point narratives and affirmation statements tended to produce greater repair than tolerance-specific narratives and affirmation statements" (Jennings and McLean 2013 p317). It was suggested that concentrating on general positive statements about the self was better than tolerant specific aspects to help in

rebuilding the self concept as a tolerant person. Jennings and McLean (2013) concluded that the "pattern of results does not support the overall superiority of the narrative process; rather, it appears that the best repairs are those that avoid the threat by affirming other aspects of the self" (p325).

This was a surprise to the researchers who had expected the threat-specific conditions to be more effective in repairing the self.

6.3. LIFE STORY APPPROACH

McAdams (2001) began wryly: "Once upon a time, psychologists viewed life stories as little different from fairy tales: charming, even enchanting on occasion, but fundamentally children's play of little scientific value for understanding human behaviour" (p100). This attitude began to change in the 1980s with different theories of personality that included narrative theories (eg: McAdams 1985).

McAdams (1985) introduced the "life story model of identity" which saw identity itself as taking "the form of a story, complete with setting, scenes, character, plot and theme" (McAdams 2001 p101). McAdams (2001) emphasised: "Life stories are based on biographical facts, but they go considerably beyond the facts as people selectively appropriate aspects of their experience and imaginatively construe both past and future to construct stories that make sense to them and to their audiences, that vivify and integrate life and make it more or less meaningful" (p101).

Habermas and Bluck (2000) talked of "biographical coherence" developing during later childhood as children "begin to see how single events in their own lives might be sequenced and linked to conform to the culture's concept of biography" (McAdams 2001 p105). The linking of events occurs in adolescence with a narrative that explains how one event causes another in one's life ("causal coherence") (McAdams 2001).

In adulthood, "chapters" (McAdams 1985) are used to segment time periods of autobiographical memories (eg: "When I was at school"; "When I worked at...").

Coherence, agency, and "redemption" (finding positive meaning after stressful events) are key aspects of "successful" narratives (Robson 2023) [2].

[2] The "Meaning Maintenance Model" (eg: Heine et al 2006) places importance on coherence, significance, and purpose.

6.4. TIME SEGMENTS

Specific memories represent "a circumscribed, one-moment-in-time event... including what was seen, heard, thought, and felt: they contain many specific details" (Pillemer 1998 quoted in Thomsen 2009). They are central to life stories, but there are sub-types, including lifetime periods (eg: "during my marriage to X"), mini-narratives (eg: "during my month in Holland"), categoric memories (eg: "my train journey to work each day"), and facts (Thomsen 2009). Thomsen (2009) added a time period of "chapter" to include lifetime periods and mini-narratives.

"There does not seem to be a natural time unit in autobiographical memory that would allow chapters to be defined with reference to a certain objective time period, eg: a week, a month, or a year. However most chapters, especially in a life story context, are likely to refer to periods lasting from months to years" (Thomsen 2009 p446). A period of nine years was calculated from life stories generated by older adults in one study (Thomsen and Berntsen 2008).

Thomsen (2009) analysed the structures of life stories freely generated by thirty older adults in Denmark (average age 80 years). The stories were coded by two independent scorers as:

- Chapters - "descriptions of parts of the life course, stretching over more 24 hours and up to several years... eg: Then the following year - we got married in 1942 and in 1944 we had our first child, a son, and he is a physician. And then four years later we had one more child, and he's also a physician" (Thomsen 2009 p449).

- Specific memories - lasting 24 hours or less.

- Categoric memories - "repeated routines, ie: similar activities with no reference to a given day or to a course of events unfolding over time" (Thomsen 2009 p450).

- Facts - "general information without reference to time" (Thomsen 2009 p450).

The average life story (collected in a 45-minute session) contained 100 elements, and chapters were most common, around one-third of them.

Thomsen (2009) accepted that "the overt telling of

the life story may not reflect the underlying organisation of the life story... Rather, the telling of the life story and the components identified in the present study may be a reflection of how people tell about themselves to a stranger. Thus, although the telling of the life story is dominated by chapters this may not reflect the internal representation of the life story" (p454).

Also "the coding of the life stories depended in part on the ability of the author to develop relevant categories but also relied heavily on the two coders' ability to divided the life story into meaningful units and distinguish between components" (Thomsen 2009 pp454-455).

6.5. BECOMING AN ADULT

The simplest definition of when an individual becomes an adult is a legal one - ie: the age that a society allows certain behaviours (eg: voting; purchase of alcohol). But there are other criteria, including biological and subjective.

Subjective criteria involve when an individual feels that they are an adult. Arnett (2000) proposed the idea of "emerging adulthood" to describe the 20s. Three core elements emerged from interviews with individuals between 18 and 29 years old around feeling an adult - capability to take care of self; able to make own decisions; and having financial independence (Sarner 2022). The interviewees were mostly from the USA, whereas in China (table 6.1), three slightly different elements were found - learning to care for parents; settling into a long-term; and feeling capable of caring for children (Sarner 2022).

Biological criteria focus on physiological changes that signify adulthood beginning, like sexual maturity. Studying different animals, Natterson-Horowitz and Bower (2020) found that reproductively mature individuals were not necessarily competent adults. They distinguished four competencies - safety (ie: avoiding predators); status (navigating social hierarchy); sexual communication; and self-reliance (ie: leaving the nest and caring for self) (Sarner 2022).

A variation on the biological criteria is brain development in humans - ie: when it becomes "mature". However, there is not a simple answer as neuroscientist Sarah-Jayne Blakemore pointed out: "The idea that the brain suddenly becomes mature [at 18] isn't true... The

- Kuang et al (2024) surveyed over 7000 17-30 year-olds in China in 2021 using the "Markers of Adulthood" (MoA) scale (Arnett 1997), which covers developmental milestones associated with adulthood in 43 items (eg: capable of caring for children; capable of running a household).

- There were similarities and differences between Chinese and Western emerging adults found, and differences within the Chinese sample based on gender, educational level, and residency (ie: urban-rural). For example, the Chinese sample placed more emphasis on relational maturity (eg: "learn always to have good control of your emotions") than Western samples, and relational maturity was more important to Chinese men than women in the sample.

Table 6.1 - Emerging adulthood in China.

brain is not a uniform piece of tissue, it is made up of different regions, which each develop at different rates, and different people's brains mature at different ages" (quoted in Sarner 2022). Alternatively, when the brain starts to decline could be used as the beginning of adulthood. Studies had shown that declines began in the 30s, but growth may also occur at the same time. "This counter-intuitive revelation - that our brains can grow and deteriorate in tandem throughout our 30s and onwards - sums up the complexities involved in pinning down the onset of adulthood. Even if we consider all of the valid definitions of adulthood, it seems to occur somewhere between puberty and our late 40s" (Sarner 2022 p43).

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7. LEGACY

7.1. OVERVIEW

"Across time and cultures, people seem to have acted with a desire to etch their names into the history books, from the pharaoh Khufu's Great Pyramid of Giza to acts of scientific discovery, works of art, sporting achievements and public philanthropy. Nevertheless, such behaviour is something of a paradox. Why devote so much time and energy to being warmly recalled when you won't be around to see the benefits" (Feehly 2023 p41). This is the "legacy paradox".

Wade-Benzoni (2019) made a similar point that "in literally dozens of experiments in which there were no material or economic incentives to give anything to future others, nearly everyone left something for future generations, and in fact there were surprising levels of intergenerational beneficence in light of the inherent barriers" (p19). Waggoner et al (2023) emphasised that "legacy centres, rather curiously, on the reputation of the self after death" (p1).

But Jesse Bering noted an implication of preoccupation with our individual legacy: "If we are burdened by the responsibility of our legacy and how we will be remembered forever, I would guess that we would be more risk-averse, at least in our social decision making. We might be hesitant to make meaningful decisions that go against the social grain" (quoted in Feehly 2023).

Wade-Benzoni (2019) defined legacy in relation to the self as "an enduring meaning attached to one's identity and manifested in the impact that one has on others beyond the temporal constraints of the lifespan" (p19). While Hunter (2008) described the process of legacy as "the process of passing oneself through generations, creating continuity from the past through the present to the future" (quoted in Waggoner et al 2023).

7.2. EXPLANATIONS

A variety of explanations have been proposed for the legacy motive, including creating a "symbolic immortality" (eg: Lifton and Olson 1974) to assuage death anxiety, producing a satisfying ending to the "life story" narrative (eg: McAdams 1993), or conferring reputational benefits to surviving relatives (Waggoner et al 2023).

Because humans are social animals, reputation within the group is important, and the legacy as a continuation of this is another possible explanation (Waggoner et al 2023).

While a cognitive-based explanation is "simulation constraint" (eg: Bering 2006) (ie: an impossibility to imagine the "state" of death), which implicitly assumes our psychological continuation after death. "To the extent that we represent others' mental states by drawing analogies to our own..., attempting to simulate a dead agent's mind will fall flat, as we have no relevant experience; any attributions we make will be made through the conscious lens of the living" (Waggoner et al 2023 p6).

Waggoner et al (2023) noted that "transmissibility of legacy can work in negative ways too, of course. Many individuals have sabotaged their reputations and disgraced their family through their transgressions. Before being sentenced to prison, for example, the criminal financier and convicted fraudster Bernie Madoff was quoted as saying: "... I have left a legacy of shame, as some of my victims have pointed out, to my family and my grandchildren".... Madoff, that is, recognised that his actions not only damaged his own reputation, but also the reputations of those closest to him. Similarly, family members of murderers and other notorious criminals sometimes change their names or otherwise distance themselves from their family's legacy; a particularly vivid example is that of the relatives of Adolf Hitler vowing never to have children" (p3). There is an idea held by many people of "folk heritability" (Waggoner et al 2022 quoted in Waggoner et al 2023), such that dating choices are negatively influenced by past family transgressions. In other words, the offspring of a "sinner" carries that stain too, irrelevant of the individual's actual behaviour.

7.3. BEHAVIOUR TOWARDS FUTURE GENERATIONS

The motivation to extend oneself into the future via a legacy is weighed against future (or intergenerational) discounting (ie: the tendency to focus more on the current situation than the future) (table 7.1). This can be seen most relevantly in the attitude towards climate change - ie: an under-investment in the future due to "a perceived sense of temporal and social distance from the most severe consequences of climate change. This sense of distance can act as a psychological barrier to environmental action by promoting inter-temporal and interpersonal discounting" (Zaval et al 2015 p231).

- Hurlstone et al (2020) defined intergenerational discounting as "the tendency for people to prefer smaller benefits for themselves now, rather than larger benefits for future others" (p1). It includes "temporal discounting" as in this definition, and "social discounting" - "the tendency for individuals to prefer to give greater benefits to socially close others, compared to socially distant others" (Hurlstone et al 2020 p1).

- Overall, "the tendency for individuals to prefer to give greater benefits to socially close others, compared to socially distant others... For both components, the degree of discounting increases as a function of distance — for the first component, the temporal distance between the decision and the consequence of that decision, and for the second component, the social distance between the self and another person (Wade-Benzoni 2008). Intergenerational discounting therefore emerges as the combined action of temporal and social discounting, creating fertile conditions for self-interested behaviour to flourish" (Hurlstone et al 2020 pp1-2).

- This was shown by Wade-Benzoni (2008), who gave US university staff a small amount of money for a game and asked them how much they wanted to keep and how much to allocate to future players (temporal distance). The future player was presented as from the same or another university (social distance). "Results revealed that allocations to the next person decreased with both increasing temporal and social distance" (Hurlstone et al 2020 p2).

Table 7.1 - Intergenerational discounting.

Zaval et al (2015) saw the possibility of overcoming this barrier by focusing on the individual desire to be remembered well after death (ie: the legacy motive). Previously, Wade-Benzoni et al (2010) had found that "legacy concerns were enhanced when people were asked to think about global warming in terms of the creation of

'burdens' for future generations compared with 'benefits'" (Zaval et al 2015 p232).

Zaval et al (2015) began with a pilot study of 245 US participants recruited via Amazon's Mechanical Turk, who were asked three sets of questions - about legacy motives, beliefs in climate change, and the willingness to take pro-environmental action. "People who reported being highly motivated by their legacy were likely to show stronger pro-environmental beliefs and greater behavioural intentions compared with those who were not motivated by legacy goals" (Zaval et al 2015 p233).

Next an experiment was designed which manipulated the legacy motive. Three hundred and twelve more US online participants were randomly divided into two groups, either to write an essay about what they want to be remembered for by future generations (legacy condition) or not (control condition). Then followed questions about the willingness to take six pro-environmental actions in the next month (eg: "buy green products instead of regular products"). This was the outcome measure or dependent variable. The legacy group reported a significantly higher willingness to take pro-environmental actions than the control group (mean 3.05 vs 2.73, out of 6).

Zaval et al (2015) ended: "Our results suggest that public policies that make individuals' legacy motives salient may be effective in encouraging environmentally and ecologically sustainable behaviours. Prompts that encourage people to think about how they would want to be remembered (or perhaps what they don't want to be remembered for) may effectively promote environmental behaviour by framing decisions as 'win-win' for both present and future generations" (p235).

This study has two key limitations. Firstly, the outcome measure was self-reported behavioural intention for the future (ie: saying that they would do something) rather than actual behaviour performed. Secondly, the participants were recruited from Amazon's Mechanical Turk, and so may be generalisable to the whole population (and particularly non-Turk users).

The legacy motive has been found to be activated by a number of variables, including mortality salience (ie: awareness of death), power asymmetry (ie: the perceived vulnerability of future generations to our decisions), and intergenerational reciprocity (ie: the benefits we gained from past generations repaid as benefits we give

to future generations) (Hurlstone et al 2020) [3].

Hurlstone et al (2020) applied these variables in an experiment on legacy motivation and climate change using the "climate public goods game". Hurlstone et al (2020) explained: "The game involves groups of six players. Each is given an operating fund of $40 that they can choose to spend, and an endowment of $45 that they can potentially lose, depending on the gameplay. The players must decide whether to contribute $0 ["selfish"], $2 ["fair share"], or $4 ["altruistic"] from their operating fund in each of 10 rounds to a climate account without communicating. At the end of each round, the contributions of each group member are made public. If by the end of the game a collective target of $120 has been invested in the climate account, then 'dangerous climate change' is averted with certainty, whereas if the collective target is missed then each player's $45 endowment is lost with a 90% probability. Regardless of whether the collective target is reached or missed, players are paid the leftovers of their personal operating funds in cash at the end of the game" (p2).

Jacquet et al (2013), who made use of this game, manipulated the payment of the legacy, as either cash the next day (short-delay condition) or invested in planting trees (intergenerational condition). It was found that "total group contributions were markedly higher in the short-delay than the intergenerational condition, with fair-share ($2) investments dominating over selfish ($0) and altruistic ($4) investments in the short-delay condition, whereas selfish investments dominated over fair-share and altruistic investments in the intergenerational condition. Critically, the collective target was reached 70% of the time by groups in the short-delay condition, whereas it was never reached in the intergenerational condition — a compelling demonstration of the unwillingness of current actors to co-operate with the future" (Hurlstone et al 2020 p2).

Hurlstone et al (2020) developed this study, but added a legacy motive condition that made this salient (table 7.2). The participants were 186 volunteers from the "campus community" of the University of Western Australia.

[3] But Bang et al's (2017) research suggested that "intergenerational behaviour is more strongly influenced by the perceived intentions of prior generations as compared to the actual outcomes inherited. This research also identified an important psychological mechanism underlying the link between the past and the future — feelings of stewardship. The perceived intended generosity of past generations increased the extent to which people expressed concerns and feelings of responsibility for the outcomes that future generations will face, which subsequently increased the amount of resources allocated to them" (Wade-Benzoni 2019 p20).

- Whether in months, years or decades, we all face the same fate as human beings. Death is certain, and life is short, even though family, friendships, and career all feel as though they will last forever. Before we know it, we will reach a point of reflection rather than action. We will be in the position of passing the places and objects in our lives on to new generations.

- We all leave footprints on the world. Some are fleeting, like a smile to lift someone's day, and some are more enduring. Even though we cannot live forever, our actions will live on long after we do. These actions can be a benefit or burden to future generations, and they dictate how our time on this planet will be remembered.

- As the current stewards of the Earth, we have a responsibility to behave in ways that do not create burdens for future generations. Behaving without regard to the life and environment of future generations is unethical in a civilised society. If we fail to take action on climate change, it will have disastrous consequences for our grandchildren and great-grandchildren. However, by engaging in behaviours that protect the climate, we can help to shield our descendants from harm. By doing what is morally right, we can ensure that we are remembered positively by future generations.

(Source: Hurlstone et al 2020 table 1)

Table 7.2 - "Leaving a Positive Legacy" (mortality salience means of triggering the legacy motive).

This experiment confirmed the findings of Jacquet et al (2013) for the short-delay versus intergenerational conditions. The legacy condition, however, led to greater co-operation than the intergenerational condition, but not the short-delay condition.

The study did not include a control group.

Uncertainty about the future is another variable related to intergenerational discounting. "Research has shown that uncertainty can give people an excuse to choose outcomes that favour themselves, because they can reason that maybe events will turn out better than predicted. In intergenerational contexts, however, uncertainty can enact legacy motivations and instead promote stewardship toward future generations. When outcome uncertainty about the consequences of the present decision to future others includes the possibility that future generations may receive no benefits, uncertainty has the effect of promoting intergenerational beneficence rather than inhibiting it. Research showed that this effect was caused by enhanced social responsibility

concerns, which emerged when decision makers were presented with the stark possibility that future generations may receive nothing at all as a result of their decisions in the present. The prospect of using up an entire resource and leaving future generations with nothing implies a negative legacy, which people find especially aversive" (Wade-Benzoni 2019 p20).

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8. KNOWING THE REAL SELF

8.1. OVERVIEW

"Intuitively at least, it makes sense to think that if you know your personality, you will make wiser life decisions, have better relationships and ultimately enjoy greater well-being" (The leader 2022 p5). But it is possible to really know the self or to know the real self? How does the picture of ourselves compare to perceptions that others have of us?

"In one sense, it is impossible to avoid knowing yourself. You are constantly thinking about how you feel, what you are going to eat tonight and so on. In addition, we each have privileged knowledge of our own personal history, our own thoughts and feelings and what we get up to when no one else is looking" (Cossins 2022 p37). The problem is making an "objective" assessment particularly when there is no objective criterion for comparison (this is known as the "criterion problem"; Cossins 2022). The simple solution is to compare self ratings with others' ratings (eg: friends; family members) as the closest to an objective assessment.

Self-knowledge can be defined simply as "the degree to which a person's self-views reflect what they are really like" (Sun and Vazire 2019 p405).

Vazire and Carlson (2010) outlined three main methods for studying self-knowledge:

i) Self-perceptions compared to objective criteria - eg: a person who perceives themselves as shy can be judged against expected behaviours for a shy person.

Summarising five laboratory studies and two naturalistic ones, Vazire and Carlson (2010) found an average correlation of +0.25 between self-perception and objective behavioural measures for the "Big Five" personality characteristics [4].

But, Vazire and Carlson (2010) admitted, "obtaining

[4] The "Big Five" personality dimensions are Extraversion, Neuroticism, Agreeableness, Conscientiousness, and Openness to experience.

objective measures of behaviour is much trickier than it appears to be and often becomes very burdensome... For example, to obtain a criterion measure for a single personality trait, we must first decide which behaviours are associated with that trait. Then, behaviour needs to be recorded and coded by multiple observers (because the criterion measure cannot rely on self-reports) and a large amount of behaviour must be observed to make sure that we are not capturing an atypical moment. Consequently, researchers often take shortcuts or simply avoid this approach altogether, which means that studies that compare self-perceptions to robust, objective measures of behaviour are rare and often have serious limitations" (p608).

ii) Self-perceptions compared to perceptions of others who know the person well.

Three meta-analyses quoted by Vazire and Carlson (2010) found correlations ranging between +0.39 and +0.55 for self and others' ratings.

iii) Ask people if they know how others view them (ie: their reputation) ("meta-perceptions").

Vazire and Carlson (2010) reported six studies involving new acquaintances and eight studies with well-acquainted individuals, and both groups had a mean correlation of +0.44 between others' ratings and how the self thought others viewed them.

But knowing how others view us is not the same as self-knowledge. Referring to this criticism, Vazire and Carlson (2010) talked of the hypothetical "Richard" "who may not see himself as others see him, and he may not even be aware of how others see him, but he may still be right about himself" (p608).

8.2. SELF-OTHER KNOWLEDGE

Generally, self perceptions correspond quite well with third-party ratings on the main personality traits (Cossins 2022). But there are variations in the relationship, including self-presentation. Making an effort to present a positive impression of the self to others (ie: "the best self") has been viewed by some as a false picture. For example, Schlenker and Pontari (2000) talked of it as "superficiality rather than substance, and deception rather than authenticity" (quoted in Human et al 2012).

Human et al (2012) took the opposite view: "positive

self-presentation facilitates more accurate impressions, indicating that putting one's best self forward helps reveal one's true self" (p23). This conclusion was based on a study with undergraduates in Canada. Sixty-six participants viewed videotapes of 24 individuals ("targets") and rated their personalities using the "Big Five Inventory" (BFI) (John and Srivastava 1999). The targets were also undergraduates, of which half had been instructed to present the "best self", and half given no instructions (controls). All targets completed the BFI for themselves.

There was greater agreement between the self and others' ratings for self-presenters ("best self") than controls. The researchers then asked: "Why were self-presenters viewed more accurately than those less motivated to self-present? Quite simply, self-presenting targets were more engaging than those who were self-presenting less, which in turn led to more accurate impressions. Presumably, perceivers pay more attention to more engaging individuals, detecting more cues and thus forming more accurate impressions" (Human et al 2012 p27).

The distinction between trait and state self-knowledge has been made. The former refers to people knowing what they are typically like, while state self-knowledge is summed up in Sun and Vazire's (2019) question, "Do people know what they're like in the moment?" (p405). These researchers investigated this question using the "Electronically Activated Recorder" (EAR), which unobtrusively recorded thirty-second segments of conversation. This was in the form of an app used over six to eight days. Over three hundred students at one university in the USA participated in this activity as part of the "Personality and Interpersonal Roles Study" (PAIRS), which included the "experience-sampling method" (ESM). This involved completing a personality questionnaire for the last hour when randomly contacted over fifteen days. The researchers had in total self-ratings (from the ESM) and audio recordings (from the EAR), which could be analysed by independent coders for an "objective" measure of personality. Such data were available for 289 participants.

Four personality dimensions were the focus - extraversion (eg: "outgoing, sociable"), agreeableness (eg: "kind", "considerate"), conscientiousness (eg: "lazy", "reliable"), and neuroticism (eg: "worried"). Generally, there was agreement between the self-reports and coders' ratings, but it varied between the

personality characteristics. Sun and Vazire (2019) summed up: "We found high levels of self–observer agreement for state extraversion and conscientiousness but lower levels of agreement for neuroticism and agreeableness. These results can be interpreted as accuracy estimates only if we assume that observers can detect true fluctuations in personality states through brief audio recordings of participants' everyday behaviours and environments. We believe that this assumption holds more strongly for momentary extraversion, conscientiousness, and agreeableness than for neuroticism. Thus, we interpret our results as showing that people have self-insight into their momentary extraversion and conscientiousness, that momentary neuroticism is difficult (but not impossible) for observers to judge, and that people have poor self-knowledge of their momentary agreeableness" (p411).

Note that the coders only had around three minutes of audio recordings per hour, and no visual information. But Sun and Vazire (2019) argued that "given the challenges of studying self-knowledge, we believe that our methodology stands out in several ways: (a) high realism (we measured behaviour across many situations in people's everyday lives), (b) moderate to high consensus on what participants were like from one moment to the next (we had each observation coded by six coders), and (c) high precision of estimates (we had large numbers of people and observations). Thus, although these results should not be the final word about state self-knowledge, they provide a strong test of college students' self-knowledge of what they are like during everyday moments" (p412).

So, in response to Sun and Vazire's (2019) original question, the answer is yes, to some degree, and it depends on the characteristics.

Practically, the lower insight (or "apparent self-ignorance") in relation to agreeableness "may be partly responsible for interpersonal problems and for blind spots in trait self-knowledge" (Sun and Vazire 2019 p405).

8.3. A MORE COMPLEX PICTURE

The picture of self-other knowledge is a little more complicated as Vazire and Carlson (2011) explained: "The available evidence suggests that self- and other-perceptions are roughly equally good at predicting behaviour in a laboratory (eg: behaviour in a group discussion...), predicting real-world behaviour (e.g.,

behaviour when out with friends...), and predicting outcomes (eg: discharge from the military...). However, the overall equality in levels of accuracy obscures a more interesting pattern: Self- and other-ratings of a person's personality do not simply provide redundant information. Instead, they capture different aspects" (p105).

Vazire (2010) proposed the "self-other knowledge asymmetry" (SOKA) model "to map out the aspects of personality that are known uniquely to the self or uniquely to others. According to this model, the differences between what we know about ourselves and what others know about us are not random but are driven by differences between the information available to the self and others and motivational biases that differentially affect perceptions of the self and others" (Vazire and Carlson 2011 p106). The self is better at judging "internal traits" (ie: those based primarily on thoughts and feelings, like anxiety), while others are better judging "external traits" (based on overt behaviour like boisterousness). Self-perception of highly evaluative traits (eg: intelligence; rudeness) is poorer than others' perceptions because of biases (Vazire and Carlson 2011).

The trait being rated is also important. Friends' ratings were more accurate than self-ratings of laboratory-based tasks for intelligence and creativity, for instance, but the opposite for neuroticism (Vazire and Carlson 2010).

8.4. META-PERCEPTIONS AND BIASES

The impression we make on others (and our beliefs about them, called "metaperceptions"; Elsaadawy et al 2021) is a variation on knowing the self. Meta-accuracy describes the accuracy of this process. Elsaadawy et al (2021) gave the example of "Matt (the metaperceiver) and Pam (the perceiver). Past work suggests that when forming a metaperception of Pam, Matt likely uses information about Pam (eg: her verbal and non-verbal feedback), information about himself (eg: his self-perception of his personality or of his behaviour with Pam), or information about what the typical person is like (ie: normative information). Of these sources, self-perceptions and normative information have the strongest empirical support for fostering accuracy" (p201). But Elsaadawy et al (2021) argued that there are differences in the

accuracy of metaperceivers, and of perceivers, as well as the interaction between the two that produces the metaperception.

Our self perceptions are influenced by cognitive biases like "illusory superiority", "where people overestimate their qualities and rate themselves more favourably that others do" (Cossins 2022 p38) (eg: intelligence) (table 8.1). An opposite bias is "imposter syndrome", where individuals (usually with low self-esteem) tend to underestimate their abilities compared to others' ratings (Cossins 2022). These biases are also known as "self-enhancement bias" (SEB) and "self-derogatory bias" respectively (Leising et al 2016), though SEB in particular is slightly different.

- Pizzi et al (2017) surveyed 189 UK veterinary students about their perceived current and future surgical skills.
- Item eg: "Do you think you are of average (5), or higher or lower surgical aptitude than the rest of your veterinary class?" (0 - 10)
- Current skills - over one-third rated themselves as "above-average" and less than one-tenth as "below-average".
- Future skills (in five years) - over half rated themselves as "above-average" compared to less than 5% "below-average".

Table 8.1 - Illusory superiority bias (or "above-average effect") by veterinary students.

Kwan et al (2004), for example, asked students unknown to each other to get acquainted in small groups of four or five people before rating themselves and each member of the group. "Positivity bias" (or SEB) was found in self-ratings compared to others' ratings, but also in the rating of the self and of other people. SEB can be formalised as "the tendency to judge oneself more positively than one judges others, and more positively than one is judged by others" (Leising et al 2016 p593).

SEB is an element of self-serving bias, with the other aspect being self-protective bias (McAllister et al 2002). Self-serving bias is exaggerated with narcissism, but reduced with dependency personality disorder characteristics, for instance, according to research by McAllister et al (2002). This experiment involved over 400 US psychology undergraduates, who completed a measure

of personality disorder first - the "Millon Clinical Multi-axial Inventory" (MCMI III) (Millon 1996). Then they were asked to read and remember a 1000-word passage, which was tested with twenty true-false questions. Participants were randomly told that their answers were 90% correct ("A" grade) or 60% correct ("F" grade). Finally, participants completed the "Causal Dimension Scale" (Russell 1982), which measures the attribution of cause of events.

Self-serving bias would be an attribution of success as internal (eg: "my own efforts") and an attribution of failure as external (eg: "the fault of circumstances").

Self-serving bias was most exaggerated in response to poor feedback for individuals with narcissistic, histrionic, and obsessive-compulsive personality traits.

Some aspects of the self may be outside of conscious introspection, and so feedback from others is necessary. Simine Vazire noted: "The ideal person is someone who knows you well but whose identity is not fused with yours - a long-term colleague who you've also spent time with outside of work, for example" (quoted in Cossins 2022). There is an "optimal margin of illusion" (Baumeister 1989), where seeing yourself positively but not too much so is the ideal for the individual and for others around them.

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9. TWO CLASSIC STUDIES OF THE SELF

9.1. MR CLEAN AND MR DIRTY

Social comparison theory asserts that self-esteem is influenced by a comparison with others. Morse and Gergen (1970) studied this idea in an experiment, subsequently known as "Mr Clean and Mr Dirty". The main hypothesis was: "The presence of a person perceived to have highly desirable characteristics produces a decrease in self-esteem. If the other's characteristics are undesirable, self-esteem increases" (Morse and Gergen 1970 pp149-150).

The participants were 78 male undergraduates at the University of Michigan who applied for a campus job. On arrival for an interview participants were individually placed in a room and asked to complete a questionnaire about themselves. Another candidate entered the room who was either the ideal candidate with highly desirable social characteristics ("Mr Clean") or the opposite ("Mr Dirty"). Mr Clean wore a dark suit, was well-groomed, and appeared self-confident with an attache case, while Mr Dirty wore "a smelly sweatshirt, ripped trousers, no socks, and seemed somewhat dazed by the whole procedure" (Morse and Gergen 1970 p150). The main independent variable of this experiment was the comparison candidate, and the dependent variable was the score on a self-esteem measure contained within the questionnaire completed before and in the presence of the other candidate.

In summary, "the socially desirable stimulus person produced a significant decrease in self-esteem, while the undesirable other significantly enhanced subjects' self-estimates" (Morse and Gergen 1970 p148).

The researchers also varied whether Mr Clean or Mr Dirty was applying for the same job (high-utility condition) or a different one (low-utility condition) than the participant. This had little impact on the main finding.

The questionnaire also measured self-consistency/ inconsistency. High inconsistency participants had a greater change in self-esteem in response to the comparison candidates than the high consistency participants.

Finally, perceived similarity to the comparison candidate was also measured. Participants who perceived

themselves as similar to Mr Dirty showed the largest drop in self-esteem in the presence of Mr Clean. Intriguingly, Mr Clean-similar participants in the presence of Mr Dirty reported a minor decrease in self-esteem, while both groups of participants that perceived a similarity to the comparison candidate showed an increase. Morse and Gergen (1970) offered this explanation: "It suggests that the mere presence of another person who is like oneself may be sufficient to boost one's self-esteem, while a person who is dissimilar may tend to reduce one's self-estimate. When another is seen to be similar to self, he places a stamp of legitimacy on one's conduct or appearance" (p154).

Overall, the main hypothesis was supported, and this experiment was strong support for for social comparison theory. It was an experiment, which has the strengths of control of variables and the situation, but there was an element of artificiality (typical of laboratory experiments), though not as bad as some experiments. No information about the long-term impact of self-esteem was measured, for example. There was some deception of participants in terms of the use of "stooges" (confederates of the researchers) as the comparison candidates, but two participants were hired to analyse the data, so it was not completely fake as a job application scenario.

9.2. SELF-HANDICAPPING STRATEGY

A "self-handicapping strategy" is "any action or choice of performance setting that enhances the opportunity to externalise (or excuse) failure and to internalise (reasonably accept credit for) success" (Berglas and Jones 1978 p406). It is a way to protect self-esteem, and, in everyday language, it is having a pre-prepared excuse for future failure. It reflects "a basic uncertainty about how competent one is" (Berglas and Jones 1978 p406).

Berglas and Jones (1978) performed two similar experiments on this topic.

In Experiment 1, 96 US psychology undergraduates were recruited for a study called "Drugs and Intellectual Performance". Initially, participants completed a twenty-question test and were told their score, which was falsely reported to everyone as high, but the success was attributed to the participant's ability (contingent-success condition) or accidental/chance (non-contingent-success condition). The latter was achieved by the use of

insoluble problems. Thus a situation of high self-esteem was set up to protect. Then the participants were given the option of testing a new drug that inhibited performance or no drug before completing another test.

"Males in the non-contingent-success condition were alone in preferring the performance-inhibiting drug, presumably because they wished to externalise potential failure on the retest. The predicted effect, however, did not hold for female subjects" (Berglas and Jones 1978 p405). Around 70% of the male participants in the non-contingent-success condition chose the drug compared to just over 10% in the contingent-success condition. The female participants showed no significant difference between the conditions.

Experiment 2 was a replication of Experiment 1, but with a no-feedback (control) condition in which participants were not told of their score after the first test. "When an insoluble-problems-no-feedback condition is compared to an insoluble-problems condition with success feedback, there is no tendency for subjects in the former condition to prefer the performance-inhibiting drug" (Berglas and Jones 1978 p416). Otherwise, the same results for males were found as in Experiment 1.

In summary: "Male subjects choose a performance-inhibiting drug in a condition in which they have just experienced a success apparently based substantially on luck. In this way, their claim on this success cannot be rudely challenged by a subsequent failure. At least their choice has provided them with a ready external attribution for any downward change in performance" (Berglas and Jones 1978 p416).

The researchers found the difference between the male and female participants difficult to explain. Note that there were less female participants in both experiments - 36 of 96 in Experiment 1, and 34 of 87 in Experiment 2. Also "the results might have been different with a female experimenter", admitted Berglas and Jones (1978 p416).

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10. CHANGING THE PERSONALITY

Roberts et al (2017) were positive: "The answer to the question of whether personality traits change is yes, and not just early in the life span" (p117). These researchers performed a meta-analysis of 207 studies that measured personality trait change during a clinical intervention, and found evidence of change over an average time of 24 weeks. Changes were maintained after therapy for "relatively long-term intervals" (p126). "Emotional stability was the primary trait domain showing changes as a result of therapy, followed by extraversion. The type of therapy employed was not strongly associated with the amount of change in personality traits. Patients presenting with anxiety disorders changed the most, and patients being treated for substance use changed the least" (Roberts et al 2017 p117).

The findings fit with the "cause-correction hypothesis" (eg: Soskin et al 2012) that therapy/ intervention produces change in personality trait measures that are real and enduring. The alternative position is the "state-artefact hypothesis" (eg: Du et al 2002), which asserts that "the changes in personality traits during therapy can be attributed to state-content contamination of typical trait measures. People who change their moods will also change their ratings on trait measures, but these types of changes do not reflect real trait change" (Roberts et al 2017 p128).

Roberts et al (2017) accepted this major caveat to their conclusions: "It is possible that the changes that clinicians impart are not remaking someone's personality. Rather, what a clinician might be doing is bringing people back to the baseline that existed before their episode of psychopathology. It is a fact that clinical intervention studies all start with people who are suffering, so we do not know what the participants in controlled intervention studies were like well before they experienced depression, anxiety, or some other form of psychopathology" (p129).

The researchers also admitted: "The heterogeneity of our data was also an issue. Our meta-analytic results found substantial mean-level change in personality, but this change was not uniform over all of the observed studies" (p131).

The idea of personality (or self) change as presented in "self-help" techniques is that changing thoughts and behaviours influences personality traits (Frankel 2022). Put another way, if individuals want to

change they can. The term "change goals" has been used, and it describes the desires to change personality traits for the better. Hudson et al (2020) found such goals linked to actual trait growth in relation to the "Big Five" traits in a mega-analysis of twelve studies performed by that research team. Put simply, individuals "tend to change in ways that align with their desires" (Hudson et al 2020 p723).

Data were available on 2238 people in twelve samples, as of May 2019, who attended psychology courses at three US universities. The overall change was small over sixteen weeks, but a larger change was found for the traits of extraversion and emotional stability (previously called neuroticism) than for agreeableness, openness (to experience), and conscientiousness. Technically, the finding was that individuals with high change goals improved more than individuals with average change goals. "For example, participants in their studies who wanted to increase in extraversion tended to experience faster growth in extraversion across the studies' duration as compared with their peers who did not wish to change" (Hudson et al 2020 p723).

The data were correlational, covering a relatively small period of time, and involving particular samples (US psychology undergraduates) in "a relatively constant environment - a single college semester" (Hudson et al 2020 p730) (between 2013 and 2019).

Stieger et al (2021) reported a three-month study of a smartphone application called "PEACH" (PErsonality coACH) (Stieger et al 2018) with over 1500 participants. The app provides tools and techniques to help in achieving personality change goals (eg: keeping a diary; reminders; psycho-education video clips). A measure of the "Big Five" personality traits was completed before, during and after the study by the participants, and by close friends, family members or intimate partners. There was a "wait-list control" group.

Participants in the PEACH group had a significantly greater change in desired personality traits than the control group. "Specifically, participants who desired to increase in extraversion, decrease in neuroticism, or increase in conscientiousness showed significantly greater trait changes in the desired direction as compared to their counterparts in the wait-list control group" (Stieger et al 2021 p3). There was no significant difference for other traits (eg: increase openness or agreeableness). Overall, self-reported changes were not always the same as observer-reported ones. For example,

"observers such as friends, family members, or intimate partners detected significant desired trait changes for participants who wanted to increase on a trait but not for those who wanted to decrease on a trait. Also, observer-reported personality trait changes were smaller in terms of effect sizes and less differentiated compared to the self-reported changes" (Stieger et al 2021 p6).

The key limitations of this study include:

i) Self- vs observer-reports of personality - For example, "individuals have greater insight into their own personality — including the perception of subtle changes therein — than do observers. However, self-reports may be biased by social desirability, demand effects, or wishful thinking. As such, participants may have reported personality changes in response of the awareness of being part of an intervention study. [...] However, observers may lack motivation to perceive changes in others' personality traits and thus may be slower than the target to update their impressions of the target's personality. Such a process might potentially mask real trait changes—especially over relatively short periods of time" (Stieger et al 2021 p6).

ii) The PEACH app users had no personal contact with researchers, and there was no way of knowing "how intense and diligently the intervention tasks were completed" (Stieger et al 2021 p6). Furthermore, the app involved many micro-interventions to change personality and it was not possible to say which of these were effective.

iii) There were differences in the amount of change in different personality traits, and the study could not explain this. Stieger et al (2021) speculated that "changes in the normative and more socially acceptable direction (eg: increases in conscientiousness) may be easier to attain due to additional support from other people. In contrast, changes in the non-normative direction may not only be less popular as a change goal per se, which limited the power to detect significant changes, but also harder to attain, as the social environment may not necessarily support changes in this direction" (p7).

iv) The sample was young adult smartphone owners recruited via online advertisements who could read German.

On the positive side, there was a control group for

comparison (one-third of the sample), and the study lasted three months.

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