Coding Protocol for Stories from Moral Exemplars in Computing in the UK and Scandinavia

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The professional life story interview used in this research was adapted from Dan P. McAdams’s (1995) life story interview and re-written by Chuck Huff (2003). The professional life story interview involves a series of questions intending on eliciting stories from a person’s personal and professional life which may give insight into personal values and themes of professional life. The following paper is divided up into four sections that outline and list the coded information extracted during the interviews and the coding protocol for standardizing the findings. The four sections cover separation and parsing of stories, social support and opposition, craftsperson versus reformer coding, and emotion and efficacy coding.

Personal demographics are coded to develop a general and uniform familiarity and knowledge base with each moral exemplar. The recorded demographics are age, sex, occupation, education level and home country. In addition, Big Five personality inventory outcomes (John & Srivastava 1999) are coded to acquire a personality profile along with a curriculum vita to provide further background information. Furthermore, the exemplars are categorized into one of three work sectors: industry, academia, or government. Since many exemplars have worked in more than one sector throughout their lives, primary and secondary sectors are coded as well. The primary and secondary sectors are identified as the exemplar’s longest and second longest tenures, as shown by the exemplar’s resume or vita and other available secondary sources.

The craftsperson versus reformer scheme is based on Carlson’s (1982) Studies in Script Theory: II. Altruistic Nuclear Scripts and used by Colby and Damon (1992). Carlson outlines certain criteria and characteristics of craftspersons and reformers to demonstrate the differences between what he describes as the two most common types of altruistic personalities. His description of the two personalities has been adapted to fit our conceptualizations and purposes of craftsperson versus reformer coding.

The fourth section addresses the exemplar’s sense of efficacy in each of the stories and includes the coding of emotions. Coding emotions is used to accurately classify an exemplar’s perception of certain situations in addition to testing a hypothesis about differences in emotion between craftspersons and reformers. The coding used here is based on the emotion system of Roseman (1984).

**Parsing Stories**

When answering an interview question, exemplars may tell one story or multiple stories, which serve as our basic textual unit for coding. Specific guidelines determining the beginnings and endings of stories become necessary
so as to identify the main idea of a story or experience. The interview begins with the exemplar giving an overview of the chapters of his or her life. Because the interviewer is asking for multiple stories here, each chapter will be treated separately and the stories in each chapter are parsed in the same manner as an answer to a specific question as explained in the previous section. In the main body of the interview, some exemplars may simply have one story that fits several questions while others may tell multiple stories to provide context for the main story when answering one question. Also, some stories occur twice in the course of an interview. Because they appear in different parts in the interview as answers to different questions, it is assumed that different aspects of the story are being addressed and emphasized and different perspectives are taken for different questions. For this reason, these stories are coded twice. Detail from another version of a story is not used in the coding unless it is specifically referred to.

Usually, the main story is identified by the exemplar in the first sentence of his or her answer to each question. Example: Nadir Experience, Answer- “It was the period when I worked for Thorn EMI…”

Given that this was the first statement from the exemplar in response to the question, we can confidently deduce that events not involving Thorn EMI are not nadir experiences. Side stories that are told during the telling of the main story but are not supplementary will be regarded simply as a context for the main story and are not coded as separate stories. However, if the exemplar states that there is another relevant experience, or tells two unrelated stories that apply to the same question, the extra stories are coded as two separate stories. This may result in a different number of stories for each exemplar.

Social Support and Social Opposition

This section analyzes the role of other individuals and groups in the exemplar’s story. The coding accounts for the amount of influence by looking at the frequency as well as the number of others involved. The dimension of social support looks at whether another person or group supports, helps, collaborates with or positively influences the exemplar. A score of 0 means no social support was mentioned. A score of 1 means that one person was mentioned for one instance of helping; additional mentions of the same instance of helping do not count. A score of 2 means that either more than one person or more than one instance of help or support was mentioned. A score of 2 includes the dimension of ongoing help or support over time.
The social antagonism coding accounts for whether another person or group actively opposes, hinders, antagonizes, or negatively influences the exemplar. A score of 0 means that no social antagonism is mentioned. A score of 1 means that one person is mentioned for one instance of opposition. Additional mentions of the same instance of opposition do not count. A score of 2 means that either more than one person or instance of opposition or antagonism is mentioned. This includes ongoing opposition or antagonism over time.

Example: Social Support

"I spent some happy years there working for a guy who has had a huge influence on my professional career and is very much a dear friend to this day."

Example: Social Antagonism

"I was very annoyed and very hurt that I’d been treated in a way that was wholly unacceptable and the fact that I was never, ever briefed about what had gone on."

Craftspersons vs. Reformers

This section categorizes the exemplars according to craftsperson or reformer views. Carlson (1982) described two distinctive altruistic personalities based on Tomkins’ (1979) nuclear script theory. “Helping [personalities] are concerned with the alleviation of suffering in individual others, while reforming [personalities] involved opposition to social conditions that oppress groups of others” (Carlson, 1982). This is the basic distinction that we are looking for in our exemplars. The following items or characteristics have been adapted from Carlson’s (1982) conceptualization table of the two personalities and will help to categorize as closely as possible, each exemplar as a craftsperson or reformer. We are expecting to find correlating craftsperson or reformer patterns with other coded items, particularly emotions (see next section).

Each of the following items acknowledges and specifies a strategy regarding the approach that each moral exemplar takes when confronting a problematic situation in his or her life. The items are expertise, perception of active harm to victim and values and actions.

1.2) Expertise
The stories’ coding involves classifying the type of expertise possessed by the exemplar. The two categories are technical and social expertise. In the category of technical expertise, the narrator describes the use of a talent, skill, knowledge or other qualification that he/she possesses that pertains to the technical skills set used in computing, such as designing software, familiarity with computing systems or mathematical skill. In the category of social expertise, the narrator describes the use of social skills and knowledge, such as persuasive communication, actions, knowledge of how to influence others and organizational savvy. The story may include one, none or both.

Example: **Technical Expertise**

"And I just happened to discover that I had a real talent in programming."

Example: **Social Expertise**

"So, after that, I made sure that you had both the structure and the detail and the open forum where people could sort of talk. That finally sort of settled these meetings into something that was helpful for everybody."

1.3) Perception of Active Harm to Victim

The coding system will also address whether the exemplar notices victims of injustice in each of the stories or that injustice has been done with victims clearly implied. The exemplar cannot be the victim unless the exemplar is representative of a victimized category.

Example:

"A lot of the software from a lot of these companies is just crap and it is so pricey. They steal money from people."

1.4) Values and Actions

The focus of an action can be viewed as either a **client** (customer, victim, user, colleague) who has experienced a loss, a lack, or harm, or a **system**. The focus on a **client** means that either the exemplar designs a technological artifact to help a specific need of customers or users or notices a need of customers that a computing system could address. The customers have been harmed, or have a loss or lack of something (e.g. they may be handicapped, or they may simply need a service, such as better computing). In this sense, the exemplar attempts to
remedy the situation by providing the client with a service. Thus someone designing software for a client may cast their story as being about service to the client or service to the users of the client’s product (these are often not the same). But in both these approaches, the person is providing a specific service or product to meet a need.

The focus of an action can also be a system, that the exemplar either notices needs reform or attempts to reform through direct action. In this case, it is less relevant whom the system affects. For the category of reform needed, the exemplar notices that the an organization, the computing industry, or a larger social system needs reform or change because the values held by the exemplar are not represented. For the category of reform action, the exemplar may attempt to remedy the situation by directing his or her actions towards reforming part of the computing system or society so that his or her values can be instated into computing. The story may include any combination of these categories.

Example: Design for Users/ Clients

"And we were the first people to show that predictive word processing could help people with spelling."

Example: Reform Needed

"But the central theme of my work has been recognizing and trying to do something about the injustices to women, and injustices in general, I hope."

Example: Reform Action

"My magnus opus certainly was the software company, which started as a company of women, which started as a company for women. And for 13 years practiced positive discrimination."

Emotion Categories and Sense of Efficacy

Emotions are an important part of interpreting events in the professional life story interview. They help to identify exemplars’ motivation to act as well as their reaction to events that they have caused, performed or witnessed. We have, for instance, hypotheses about the extent of negative or positive emotion associated with craftspersons versus reformers.

After reading each story, raters will rate the extent to which 15 specific emotions occur in that story. These are taken from Roseman (1984). The emotions are listed below, with the definitions from the Oxford English Dictionary, (2001) and thesaurus terms from the Oxford English Thesaurus (REF).
A story may have both negative and positive emotional tone, and thus a story may receive high ratings for both positive and negative emotions. Emotion tone is only coded with regard to the emotional experience of the exemplar her or himself. If the exemplar does not appear in the story, all emotional codings are 0 (zero). If someone is angry at the exemplar and this makes her sad, the story would be coded high in sad (and perhaps moderately high in anger if the exemplar mentions she was also somewhat angry too). The rater should be able to single out specific phrases or sentences that allow the inference that an emotion is present.

2.1) Efficacy of Individual Help

In performing an action, one has a sense of efficacy with their actions. In this case, the exemplars are confident that their actions make a difference to others, to society, or whatever the focus of the action is. In coding, either the exemplar makes a direct statement of achievement of a goal or that the plan is successfully in progress. Textual evidence of is the story’s main criterion. If no statements indicating success are made, contextual evidence or emotions may be used to indicate effectiveness, but are not necessary. Possible positive emotions include hope, joy, relief, love and pride. Emotions are not necessary. These emotions are based on Roseman’s system (1984).

Exemplars can also have a sense of inefficacy of their individual help. In this case, the exemplars feel less confident that their actions are producing the desired impact. In coding, either a direct statement of failure or incomplete achievement of a goal is made or the narrator describes the situation with an emotion indicating inefficacy. Textual evidence of lack of success in the story is the main criterion. If no statements indicating failure are made, contextual evidence or emotions may be used to indicate ineffectiveness, but are not necessary. Emotions indicating inefficacy include fear, sadness, distress, frustration, disgust, dislike, contempt, anger, regret, guilt and shame. However, emotions are not necessary.

It is possible to score zero on both of these, and thus the two codings are independent. A story in which effectiveness was irrelevant would score low on both. A story in which the person failed and later succeeded would score high on both.

Example: Direct Statement of Efficacy

“It is something you take pride in, the fact that you’ve actually made a difference to that organization. You have done a good job, it has worked, you’ve cracked the problems and you have helped them.

Statement of Efficacy Shown Through Emotion
"But I felt a sense of relief in taking the job that I was going to get back into an ordinary normal job."

Example: **Direct Statement of Inefficacy**

"I applied for 80 jobs and had 80 rejections."

**Statement of Inefficacy Shown Through Emotion**

"I felt hugely guilty about the amount of computer power that these people had used, and that was stupid of me because it was my company who worked and charged for it so the bill was going to be dropped anyway..."

2.1a **Emotions of Efficacy**

The emotions indicating efficacy, those that are motive-consistent, according to Roseman (1984) are listed below, with the definitions from the Oxford English Dictionary, (2001) and thesaurus terms from the Oxford English Thesaurus (REF).

**Joy/Enjoyment:** A feeling of great pleasure or happiness (Oxford, 2001).

Synonyms: bliss, delight, ecstasy, elation, exaltation, felicity, gladness, glee, gratification, jubilance, pleasure, rapture, ravishment, rejoicing, transport, be entertained, loving, luxury, pleasure, rejoicing, relish, savor, revel, like, appreciate, euphoria, fancy.

*Example:* “We used to have jokes, it was a huge success.”

**Relief:** A feeling of reassurance and relaxation after anxiety or distress have been removed (Oxford, 2001).

Synonyms: abatement, aid, allayment, alleviation, appeasement, assistance, assuagement, break, deliverance, diversion, ease, lightening, mitigation, release, remission, respite, succor, soothing, variation, lessening, dulling.

*Example:* “but I felt a great sense of relief on taking the job.”

**Pride:** A feeling of deep pleasure or satisfaction gained from achievements, qualities or possessions (Oxford, 2001).

Synonyms: egoism, satisfaction, vainglory, conceit, vanity, arrogance, self-esteem, congratulate oneself, flatter oneself, pat oneself on the back, reveling glory, exult, boast, brag, crow.

*Example:* “I was proud, of course that we had done such a good job.”

**Liking:** A feeling of finding someone or something agreeable or satisfactory (Oxford, 2001)
Synonyms: affection, affinity, appreciation, bent, bias, desire, fancy, inclination, love, partiality, penchant, predilection, preference, proneness, propensity, soft spot, taste, tendency, weakness, fondness, weak spot, leaning, proclivity.

Example: “We spent three days with these people in a loving, caring atmosphere while we dealt with the people of importance to the world.”

**Hope:** A feeling of expectation and desire for something to happen (Oxford, 2001)

Synonyms: ambition, anticipation, aspiration, assumption, belief, confidence, dream, desire, expectancy, expectation, faith, hopefulness, longing, optimism, pipe dream, yearning, wish, assurance, conviction, craving, trust.

Examples: "I wished they would have just understood it in the first place because we tried to tell them."

2.1b Emotions of Inefficacy

Emotions indicating inefficacy, those that are motive-inconsistent, according to Roseman (1984) are listed below.

**Fear:** An unpleasant emotion caused by threat of danger, pain or harm (Oxford, 2001).

Synonyms: agitation, angst, anxiety, apprehensiveness, aversion, bugbear, concern, consternation, dismay, disquietude, doubt, dread, foreboding, horror, misgiving, nightmare, panic, phobia, scare, suspicion, terror, timidity, trembling, tremor, trepidation, unease, uneasiness, worry, live in fear/dread of, butterflies, quaking, quivering, shivers, terror, nervousness, disquiet, disquietude.

Example: “It is again this fear factor that I need to explore and if you have some good references I would really like to see them because I have not found anything that deals with that part of human interaction.”

**Sorrow:** A feeling of deep distress caused by Loss or disappointment (Oxford, 2001).

Synonyms: affliction, anguish, dejection, depression, distress, grieving, heartache, heartbreak, misery, misfortune, mourning, pain, sadness, suffering, trial, tribulation, trouble, unhappiness, woe, worry, wretchedness, heaviness of heart, desolation, disconsolateness.

Example: “I have to say that I have had lots of traumas and lots of trial and tribulations.”

**Distress:** A feeling of extreme anxiety, pain or exhaustion (Oxford, 2001).
Synonyms: anguish, anxiety, misery, suffering, wretched, bother, grieve, oppress, pain, torment, trouble, vex, worry, upset, arouse, perturb, harrow.

Example: “I tend to get very upset when people discount my capabilities of taking care of things or thinking things through.”

**Regret**: A feeling or expression of sorrow or disappointment about something one has done or which one should have done (Oxford, 2001).

Synonyms: bemoan, deplore, feel remorse, feel sorry, mourn, repent, rue, weep over, disappointment, lament, be upset, grieve over, wish undone, have conscience about, fret about.

Example: “When I found out that I could do this, I was a little disappointed.”

**Guilt**: A feeling resulting from the fact of having committed an offense or crime (Oxford, 2001).

Synonyms: blameworthiness, contrition, criminality, culpability, delinquency, disgrace, guiltiness, iniquity, misconduct, penitence, regret, remorse, self-condemnation, self-reproach, sin, sinfulness, stigma, wrong, bad conscience, dishonor, censurableness, wrong doing, wrongfulness, self-accusation, unlawfulness, feelings of guilt, guilty conscience, shame, remorse, regret, compunction, blame, contriteness.

Example: “I did that but of course that was very wrong.”

**Shame**: A feeling of embarrassment or distress arising from one’s awareness that one has done something wrong or foolish (Oxford, 2001).

Synonyms: degrade, discredit, dishonor, embarrass, humiliate, infamy, odium, shamefacedness, disgrace, discomfort, discomposure, disrepute, ignominy, ignominy, mortification, loss of face, remorse, guilt compunction, condemnation, reproach.

Example: “After that, I was embarrassed.”

**Frustration**: An emotion caused by a prevention or a plan or action from progressing or succeeding (Oxford, 2001).

Synonyms: annoyance, bitterness, circumvention, defeat, dissatisfaction, foiling, nonfulfillment, nonsuccess, resentment, thwarting, vexation, balk, forestalling, hampering, disappointment, discontentment, anger.

Examples: “I was very annoyed and very hurt that I had been treated in a way that was wholly unacceptable.”

Synonyms: annoy, infuriate, outrage, enrage, exasperate, gall, incense, irritate, madden, nettle, pique, provoke, rile, vex.

Example: “I was infuriated that they wouldn't listen to what I had to say.”

Contempt: The feeling that a person or thing is worthless or beneath consideration (Oxford, 2001).

Synonyms: condescending, derision, disdain, disregard, mockery, neglect, slight, loathing, disrespect, disgust, abhorrence.

Example: “I felt like they were completely neglecting my point of view and my input.”

Disgust: A feeling of revulsion or strong disapproval (Oxford, 2001)

Synonyms: displease, nauseate, offend, outrage, repulse, revolt, scandalize, shock, sicken, turn off, annoy, anger, appall, dissatisfy, turn one’s stomach, repel, cause aversion.

Example: “Nothing made me sick like that.”

2.2) Positive and Negative Emotional Tone

Using the emotions from the Roseman model, the coder will rate whether the story is positive or negative in emotional tone. A positive emotional tone correlates with motive-consistent or efficacious emotions. Positive emotions can also be necessarily implied by the description of an experience. A negative emotional tone correlates with motive-inconsistent or inefficacious emotions. Negative emotions can also be necessarily implied by the description of an experience. The story can be one, both or neither.

Example: Positive emotional tone necessarily implied by the description of an experience

"Whether I've made a difference and whether I'm making a difference is really for others to comment on, but the moment set up an opportunity which gave me that possibility. And that has to be clearly a significant career changing event."

Example: Negative emotional tone necessarily implied by the description of an experience

"He accused me of working in a way that would keep him out."
Procedure

A team of two independent coders codes all of the moral exemplars’ stories. In order to establish inter-rater reliability, the same two coders are used for all stories. Each story is coded at the same time by each coder, who uses a coding sheet to rate the story according to the categories. Each coder reads through the stories independently and records their initial results. Coders move through a transcript in its natural order so as to preserve the context of each story.

In the event that a new coder must take the place of an old coder, a training procedure must be followed. The new coder will review the coding manual and coding sheets. Next, the coder will attend a training session where he or she codes a set of stories. After the practice coding is complete, the new coder will discuss discrepancies with the more experienced coder.

Coding of Social Support and Opposition

The two independent coders will code for social support and opposition. The coders will evaluate the criterion of number of people involved and frequency of help and opposition. These categories will be scored on a scale of 0, 1 or 2 indicating the extent of the specified aspect.

Coding of Craftspersons versus Reformers, Sense of Efficacy and Emotional Tone

Two independent coders also carry out Craftspersons versus Reformers, Sense of Efficacy and Emotional Tone coding. First, the coders will evaluate the frequency of each of the four criterions for Craftspersons versus Reformers: type of expertise, perception of active harm to victim, view of obstacle and values and actions. Next, the coders will evaluate the sense of efficacy based on the criterion of inefficacy and efficacy and if needed, their relevant emotions. Finally, the coders will evaluate the presence of negative and positive emotions within the stories. These categories will be scored on a 0/1 scale indicating whether or not the story includes the specified aspect.

Computing Kappa

Once the coders have coded a story, they will compute a statistical measure determining interrater reliability. The scores from each of the coding worksheets will be tallied in a Kappa worksheet. Kappa will be computed by taking the values from the Kappa worksheet and inputting them into a website that computes Kappa. Cite website here!!

Kappa was chosen to compute interrater reliability because it calculates statistics for interrater agreement for two or more raters with two or more ratings. Kappa ratings range from 0-1. Zero would be the amount
of agreement expected by chance and one would be perfect agreement. Kappa does not take skew into account, so in cases where there is a great amount of skew, agreement will determine good interrater reliability.

**Interrater Disagreement**

I’m not sure what to put here………..

What about this????

> Once coded, the craftsperson/reformer data is to be stored in two separate types of spreadsheets. One spreadsheet will be created for each exemplar at this level. Information will be stored in columns marked for the various craftsperson/reformer demographics (valence of activity, activity of focus, etc.) with each row representing separate stories. A summary statistic will be calculated for each demographic in order to determine the degree to which each exemplar fits within the Craftsperson/Reformer categories. The second spreadsheet will display summary statistics for all moral exemplars. Information will be stored in columns of the various story demographics and rows for each exemplar. This spreadsheet will be used to create a summary statistic from which the researchers may evaluate the craftsperson/reformer quality of each exemplar, which will be evaluated by separation into quartiles.
References


http://www.letus.org/foley/instruments/interview.html