Self-Mapping in Counselling: Using Memetic Maps to Enhance Client Reflectivity and Therapeutic Efficacy

Le self-mapping en counselling : utilisation de la cartographie mémétique pour améliorer la réflectivité du client et l’efficacité thérapeutique

Lloyd Hawkeye Robertson
Athabasca University

ABSTRACT
Combining theory and practice, this article demonstrates how the construct of the self may be represented graphically with implications for our understanding of self-determination and counselling. It begins with a review of attempted graphic self-representations in psychology, social work, and education. The self is then situated ontologically within the perspective of cultural evolution, and this paradigm is used to inform the construction of maps consisting of units of culture called memes. Graphic self-maps of two individuals, one in counselling and one not, are compared and contrasted. The self-maps depict self-defining cognitive structures combined with psychological and environmental determinants. It is proposed that such graphic illustrations could benefit counsellors and their clients in planning and executing transformative change. Further research is recommended that explores the effect of self-mapping on client empowerment, the structure of client selves, and the use of mapped cognitive pathways in treatment.

RÉSUMÉ
Alliant théorie et pratique, cet article démontre de quelle façon il est possible de représenter de façon graphique la construction du soi, ce qui se répercute sur notre compréhension de l’autodétermination et du counseling. L’article s’ouvre sur un examen des tentatives d’autoreprésentation graphique en psychologie, en travail social, et en éducation. Le soi est alors situé ontologiquement dans la perspective de l’évolution culturelle, et ce paradigme permet de documenter la construction de cartes composées d’unités de culture, appelées memes. On compare et contraste les autoreprésentations graphiques de deux personnes, l’une qui œuvre en counseling et l’autre pas. Les autoreprésentations (self-maps) dépeignent des structures cognitives autodéfinies conjuguées à des déterminants psychologiques et environnementaux. On y suggère que de telles illustrations graphiques pourraient s’avérer utiles aux conseillers et à leurs clients pour la planification et l’exécution du changement transformateur. On recommande de mener d’autres recherches pour explorer l’effet du self-mapping sur l’habilitation du client, la structure du soi chez les clients, et le recours à des parcours cognitifs cartographiés dans le cadre du traitement.

The self has been defined as a culturally mediated cognitive self-referencing representation that allows for reflection on one’s spatial and temporal context
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The advantages of having such a self include volitional decision making (Caprara et al., 1998), relational competence (Leahy & Shirk, 1985), and future orientation (Hermans & Hermans-Jansen, 1995). The costs of this consciousness include embarrassment, anxiety, depression, and knowledge of one’s mortality (Leary, 2004). Internalized self-representations have been linked to problems of depression (Dozois & Dobson, 2001), suicidal ideation (Robertson, 2011), self-esteem (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Wiedenfeld et al., 1990), and intimacy (Erikson, as quoted in Corey & Corey, 2003, p. 98). Grieving has been described as a process of building new or revised selves (Bridges, 1980, 2001), and the experience of Aboriginal children in church-run Indian residential schools has been described as an attempt to re-engineer the selves of those children (Robertson, 2006). Despite a plethora of such applications, little has been done to represent the self structurally. Counselors working with clients’ self-awareness, self-empowerment, self-esteem, or self-concept would find depictions of the self underlying such concepts potentially useful.

Graphic Self-Representation in Psychology, Social Work, and Education

Field theory, as developed by Lewin (1931), used play, emotion, speech, and expression to generate environmental and psychological indicators of future behaviour in children. Weighted vectors were produced, showing the influence of external and internal factors with the assumption that, if influencing factors were sufficiently understood as part of a dynamic process, behaviour could be accurately predicted. Subsequently, Lewin (1943) declared that field theory was not properly a theory but a method of analyzing causal relations. Further complexity was acknowledged through introducing and representing temporal dimensions of the psychological past, present, and anticipated future as understood by the individual.

Commenting on the problem of system complexity in the field of social work, Hartman (1995) argued that cognitive understandings are typically arranged as chains of simple cause and effect, but this reflects limitations of thought and language rather than the nature of the real world. She advocated using graphic representations to aid in understanding interrelated parts holistically. Resultant eco-maps are representations of the systems at play in a client’s life with the ecological metaphor used to help professionals “see the client not as an isolated entity for study, but as a part of a complex ecological system” (Hartman, 1995, p. 113). Typically, a circle is placed at the centre of such self-maps and labelled “me.” Members of the individual client’s family system and other relevant interacting systems are connected to this “me” with lines coded to indicate relationship strength, stressful relationships, and direction of influence. Supplemental genograms are used to illustrate intergenerational family dynamics impacting the individual.
Self-maps in counselling and education have also connected a largely undefined self to surrounding forces influenced by internal perceptions. Cahill and Martland (1996) used such maps to illustrate the nature, causes, and possible resolutions of career problems. Internal forces impacting on career choice included existing aspirations and perceived weaknesses. Shepard and Marshall (1999) used the idea of mapping to illustrate possible future selves in goal-directed activities that included consideration of internal aspirations, values, and fears. Mind mapping in educational settings (Budd, 2004; Weeks, 2002) places the self-as-knower in a central position linked to known self-characteristics. Mind-mapping has also been used in cognitive-behavioural therapy to provide flexible holistic case summaries (Williams, Williams, & Appleton, 1997).

In these examples, the self is given centrality but is either left undefined or is defined incompletely. At one extreme, we are understood as determined by environmental and genetic forces (Kariel, 1956). At the other extreme, the self-as-knower is assumed with an implied transcendental ability. If the former postulate is true, then the maps of Lewin should suffice to predict and manipulate client behaviour. If the latter postulate is true, then awareness of environmental forces is but a first step in developing successful coping strategies in the exercise of free will. In contrast with both determinist and transcendentalist perspectives, this article makes the following arguments: (a) the self as a cultural construct evolved to provide an individual sense of agency, (b) the practice of psychology is predicated on the notion of individual agency, and (c) maps of the self can be useful in therapies predicated on client empowerment and change.

The Self as an Evolved Agentic Structure

Psychotherapy is often considered to be a process based on rational self-change (Bandura, Barbaranelli, et al., 2001; David & Szentagotai, 2006; Stefflre & Matheny, 1968). The notion of conscious human agency has not gone unquestioned. Libet (1999) demonstrated that a neurological readiness to act existed in experimental subjects before they were consciously aware of making such a decision; however, his experimental design could not demonstrate that such preparedness was a cause, a necessary condition, or even a correlation to subsequent behaviour (Radder & Meynen, 2013). Gazzaniga (2000) showed that left-hemispheric operations related to language acquisition serve to create explanatory narratives for nonunderstood actions undertaken by an unconnected right hemisphere. While this has been taken as evidence supporting determinism (Blackmore, 1999; Pinker, 2002), a demonstration of some examples where agency is an after-the-fact illusion cannot be taken as proof that the exercise of agency is always illusory. Such ability may be a specialized and recent adaptation.

Following his analysis of classical literature, Jaynes (1976) surmised that pre-Homeric Greeks were unable to exercise self-agency and were dependent on pre-programmed cultural responses to triggering events. After examining similar data from pre-1,000 BCE Greek and Egyptian cultures, Johnson (2003) concluded the people in these early civilizations lacked minds. He defined the mind as an
An evolved cognitive program that gives the brain the capacity for objective beliefs, individual volition, and internally consistent thought.

While other writers have placed the emergence of the self many millennia earlier (Blackmore, 1999; Dennett, 1995; Donald, 2001), if we view the self as an evolving entity, then primal selves existed long before the collection of attributes Johnson (2003) called mind. An interpretation consistent with the data is that for ordinary purposes, humans enact genetically and culturally determined sequences upon the presentation of triggering stimuli, but that at some point in human history we developed a capacity for self-reflection. By predicting possible consequences for anticipated behaviours with our selves as volitional agents, we may reprogram ourselves to engage in different behavioural sequences when presented with triggering stimuli.

**Memetic Self-Mapping Used with a Youth Experiencing Suicide Ideation**

Defining the word *meme* as an elemental unit of culture exhibiting referent, connotative, affective, and behavioural dimensions, Robertson (2011) prepared memetic maps of the self of a youth who had a history of suicide ideation. Self-referencing memes were identified from client-prepared prioritized lists of roles, beliefs, likeable attributes, and disliked personal qualities. Memes that shared connotative, affective, or behavioural dimensions were considered connected in a way that mimics attractive force. Named memes were represented by ovals with connecting edge lines representing vectors of attractive force. The resultant structure is shown in Figure 1. The counsellor was surprised to find a meme labelled “depressed person” as a core or hub of the client’s self-definition, and this informed the resultant therapeutic plan.

The proximal goal of counselling in this case was to reduce the number of memes linked to the “depressed person” hub and to create a new hub labelled “human rights,” centring such memes as “animal rights activist,” “feminist,” and “outspoken.” It was suggested that the mapping exercise gave the client a sense of continuity, allowing her to transcend fears of self-instability that frequently thwart change attempts of those having low self-esteem (de Man & Becerril Gutierrez, 2002).

Although Robertson (2011) measured levels of client depression, suicide ideation, and hopelessness on a standardized instrument in both pre- and post-treatment phases, these psychological characteristics and their role in triggering suicidal ruminations were not illustrated. Similarly, while environmental forces serving to keep this youth’s dysfunctional self intact are discussed in the article, those forces were not illustrated. The self in Figure 1 is presented as a cognitive structure detached from psychological and environmental determinants. Although therapeutic change was illustrated through a series of maps, the internal and external mechanisms effecting these changes were not presented. If the self is understood as neither transcendent nor totally determined by genetic and environmental forces, the interplay of these forces need to be acknowledged.
EXAMPLES OF REFLECTIVITY ASSOCIATED WITH MEMETIC SELF-MAPPING

In the paradigm adopted in this article, the modern self as defined by Jaynes (1976) and Johnson (2003) has the capacity to defy at least some genetic and cultural determinants through the process of reflectivity. That reflectivity and the notion of an objective reality upon which it must rest is considered to be a product of a self-referencing entity that contains elements of volition, uniqueness, and continuity (James, 1890, 1892/1999; Robertson, 2010). Although counselling may be viewed as a process harnessing individual reflective choice, this capacity is influenced by psychological and environmental forces impacting the client. The capacity for graphic representations to inform counselling would, therefore, be increased by inclusion of those forces.

This section begins with the examination of the self-map of a young Metis woman who was not in counselling when she participated in a project researching Aboriginal identity. Her account of mental health awareness and self-care while engaging in self-reflection associated with self-mapping speaks to the potential

Figure 1. Initial self-map of a suicidal youth displaying interconnected memes.
of this medium. This is followed with a case study in which self-mapping was incorporated into counselling.

An Example of Reflectivity Leading to Self-Determined Change

Using the definition of meme developed in the account of the suicidal youth discussed earlier, but with an alternative method of identifying those memes, Robertson (2014) mapped the selves of 4 individuals demonstrating a spectrum of possibilities associated with Aboriginality. Memes were identified by transcribing and segmenting participant narratives with coded segments examined for affective, connotative, and behavioural dimensions. Memes sharing such dimensions were deemed to be linked, allowing for the construction of self-maps. These maps were reviewed by participants after a 3-month interval for further elaboration, confirmation, or disconfirmation of component parts. The Metis woman whose final self-map is shown in Figure 2 engaged in unexpected transformative change unrelated to the subject matter of the study, and it is that change that will be examined here.

Eleven segments from “Tina’s” initial interview were coded for the meme “mother,” and it had more links or associations (10) than other meme. By these two criteria, “mother” was her core meme. Motherhood was associated with memes for “anxious,” “paranoid,” and “not in shape,” reflecting self-criticism. Unexpectedly, “mother” was not linked to “wife,” and Tina affirmed this separation on review. The memes were grouped into clusters represented by the following thematic or interpretive codes: Love, Family, Learner, Empowered, and Decent Person. These thematic codes are represented by rectangles.

Memes without attached numbers were added during a second interview held after a 3-month interval. On that occasion, Tina added a meme labelled “self-changer” connected to “learner” because change, in her view, involves learning. “Self-changer” was also connected to “mother,” as she had stopped binge drinking when she learned she was pregnant and she took this as evidence of her ability to effect change. Broken lines connected to “self-changer” are used to denote changes that were attempted as a result of her participation in the mapping exercise, but not yet fully realized. For example, her decision to modify her meme for “wife” by removing a self-imposed injunction that she was responsible for all housework and child rearing was only partially realized by the end of this study. Similarly, her decision to become less “paranoid” by allowing her children more freedom to play on their own was only partially successful. She also decided to become less of a “pleaser,” which represented a tendency to take care of others’ needs at the expense of her own. The line connecting it to “self-changer” is drawn to pass through a meme labelled “assertive” because she drew on life examples of assertiveness in developing her plan.

During our initial interview, Tina had shared that she had been diagnosed with depression, but she had refused medication because “I should be feeling everything... because that is part of life.... That’s who I am.” She explained that a repertoire of emotions such as “sad, happy, mad, confused, distant” are necessary
Figure 2. Memetic map of Tina resulting from the segmentation and coding of her initial interview showing the number segments coded for each meme (in brackets).
to feel human. That repertoire was represented by a bar at the bottom of Tina’s self-map labelled “menu of emotions.” Events and contexts trigger specific emotions that, in turn, trigger a focus on specific aspects of her self. This dynamic is represented by directional arrows emanating from the menu to various themes and memes.

During a third and final interview held 4 months after the second, Tina reported her school-aged son had told her over breakfast, “I like it when you eat breakfast with me, mom.” She realized that she had not eaten breakfast with him recently and decided she had been “a little depressed.” As a result of this discussion, we created a second menu bar labelled “depression and guilt,” which was placed over the directional arrows emanating from the menu of emotions at the base of Figure 2. This illustrates how depression served to block a range of emotions that would normally trigger thoughts and behaviours. When asked what “depression” triggers, Tina said it deactivates her “self-change” meme by convincing her that change is impossible. Subsequent to this study, Tina sought a medical diagnosis for depression and began using medication. She said the mapping exercise helped her realize that depression, not medication, had been preventing her from consistently experiencing a full range of emotions.

The example of Tina illustrates the potential of self-mapping in generating reflective thought about one’s mental health by someone who was not in counselling at the time. We now turn our attention to how such mapping can generate reflectivity and independent action during the course of counselling.

**Memetic Mapping in Self-Development and Client Empowerment: A Case Vignette**

“Olivia,” an Aboriginal woman in her thirties, was on medical leave after having been raped by a friend with whom she had been drinking. Police decided there was insufficient corroborative evidence to lay charges. She was subject to verbal assaults from family members of the alleged perpetrator in the remote northern community. She experienced daily anxiety attacks. Treatment included psychoeducation about anxiety, progressive relaxation, visualization involving symptom reversal, positive self-affirmations, and meaning making. She was able to resume work within six weeks; however, she continued in counselling for self-development. Using the method for identifying memes used with the suicidal youth (Robertson 2011), Olivia was asked to list her defining roles, positive attributes, negative attributes, and beliefs. Memes identified from these lists were used to co-construct the self-map in Figure 3.

This self-map includes three clusters labelled Spiritual/Fitness, Social Person, and Imperfect. Olivia associated outdoor activities such as fishing, hunting, hiking, and snowshoeing with spiritual, meditative, and mystical processes, with the result that the themes labelled “Spiritual” and “Fitness” are linked. A connotation included in her environmentalist, outdoorsy, god belief, and spiritualist memes was interconnectedness. She also saw herself as interconnected with her large extended family, and this cognitive path leads to a cluster labelled “Social Person.” This cluster includes two groups—family and friends—connected by
an identifying meme, “supportive,” that she defined as “doing for others.” If she felt imposed or put upon by supporting others, a connotative meaning led to the self-critical “oversensitive” meme which, in turn, led to depression and anxiety, the core of her “Imperfect” self cluster. This cluster was made more debilitating by the presence of a self-defining perfectionist meme, but that meme also led to self-directed learning that, in turn, could stimulate her sense of adventure. Her “Imperfect” self, however, became associated with patterns of rumination and binge drinking.

The bar at the bottom of Olivia’s self-map represents a menu of emotions that, if triggered, could shift the subject’s focus to a particular cluster. Clinical depression and anxiety distinct from her cognitive representations of the same name are also pictured here. Whereas in Tina’s self-map depression and

Figure 3. Initial self-map of Olivia displaying memes, external influences and emotions.
guilt were pictured as blocking other emotions and deactivating an empowering meme, in this case depression and anxiety are pictured as triggers activating Olivia’s “Imperfect” self cluster. Her family, spouse, and work associates were presented as being supportive and are represented in Figure 3 by broad green arrows with external origins.

We continued to reference and modify Olivia’s self-map throughout counseling. After reflecting on the effect that alcohol had on her life, she committed to not drinking to excess, and this was defined as a maximum of two drinks per social occasion. With the successful application of this rule, the meme “drinker” was changed to “social drinker.”

Olivia’s partner continued in a pattern of heavy drinking that she initially attempted to accommodate. She reported, however, that he was a “mean drunk,” verbally attacking her for trying to change, criticizing her housework, and accusing her of infidelity. He began checking her e-mail, social media sites, and cell phone while sober. At a subsequent session, she announced that she had left her spouse and moved into a small unfinished cabin. She appeared positive about this new development and scored low on the North American Depression Inventory. As this improvement was maintained, we were able to remove “depression” from her self-map. When challenged to state what she would do with her increased free time, she looked at her map and said “photography,” which she linked to “learner,” “outdoorsy,” and “environmentalist.” She also linked it to “sensitive” because it was from that space she hoped to gain perceptiveness and perspective. “Sensitive” represented a reframe of the meme “oversensitive.”

Olivia reported that she no longer felt respected at work and that she was not given the information or latitude to do her job properly. She also found her family, particularly her mother, to be invasive and controlling. She came to realize that she had changed, and actions that had been perceived to be supportive 6 months earlier were now felt to be restrictive. With the support of her family, she moved to another community, found a new job, and began professional training in photography. Her new self-map including accumulated changes are illustrated in Figure 4.

Our final session included a review of Olivia’s self-map to reflect any further changes in her self-definition. She added “dog owner,” reflecting the increased importance her pet came to have in her life. “Family person” became “individuated family person,” reflecting her continued love while enforcing newly established boundaries. She offered the insight that being “sensitive” had led to her becoming “self-aware,” and that, in turn, fuelled her newfound sense of independence and decision making. This combination of independent decision making and self-awareness led her to set boundaries with respect to her family, pursue her interests in photography and environmentalism, and redefine her role as a mother. The empowerment implied by these activities is represented as a thematic or interpretive code.

Olivia’s post-therapeutic self is pictured as having an increased number of internal connections allowing her to move between cognitive clusters. For example,
she could focus on photography or her sense of empowerment in moving away from a debilitating sense of imperfection or inadequacy. We explored those psychological qualities that helped her to effectively revise who she was. She said she was introverted (which for her connoted self-reflection) and self-assured. I also added “intelligent” to a list of psychological characteristics that was not intended to be a complete list.

**DISCUSSION**

This article grounded examples of memetic self-mapping in a theoretical model compatible with both the practice of client empowerment and a naturalistic worldview. In contrast with assumed environmental and genetic determinism (Lewin, 1931; Lewin & Lippitt, 1938; Wilson, 1995) or a homunculus separate from such constraints (Cahill & Martland, 1996; Hartman, 1995; Shepard & Marshall, 1999), the self was described here as a culturally evolved cognitive structure that may, through the practice of reflectivity, initiate behaviours at variance with

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**Figure 4.** Olivia’s self-map as co-constructed on the termination of therapy.
biological and environmental (including cultural) determinants. It was suggested that this view of self is compatible with those psychotherapies promoting client empowerment and change.

This article illustrated how maps of the cognitive structure of the self may be prepared while simultaneously accounting for environmental and psychological forces. The method used in self-map construction utilized client expertise in self-definition while referencing relevant environmental and psychological factors that may not have previously been in conscious awareness. The process encouraged reflective self-examination with the mapping exercise, contributing to a sense of self-continuity while permitting the individual to engage in self-change.

Having agreed to participate in research into self-mapping with the anticipated benefit of self-knowledge, Tina engaged in planned transitions involving changes to her self-definition in the absence of professional counselling. Of the 11 participants in this research (Robertson, 2010), 3 engaged in planned transitions during the 9-month study, but only Tina’s directly referenced a mental health condition. Larger studies with teams of researchers, possibly with the aid of computer software programs (currently under development) that would allow more independent client involvement in self-map creation, may generate sufficient sample sizes to generate statistical estimates of such self-mapping effects.

Although Olivia was in counselling, she informed her psychologist of her decisions to end her dysfunctional relationship and leave her home community after the fact. The possibility that the process of client-engaged self-mapping can lead to increased client empowerment and self-direction requires further study. Given the vulnerability of such client populations, the recruitment of research participants would need to be coupled with the provision of adequate psychological support. It may be possible to recruit counsellors who agree to use self-mapping as part of their practice with clients, and who also agree to participate in such investigations.

Associations between memes in these maps were illustrated using connecting lines or edges, and it was suggested that such associations can lead to circuits of ruminative thinking exemplified by Olivia’s “Imperfect” self. The notion that depressive rumination involves a circuitry of associations that can be modified by cognitive or learned self-regulatory behaviour has been established in the literature (Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001; Nepon, Flett, Hewitt, & Molnar, 2011; Teseschi & Calhoun, 2012). Therapists may find this method of mapping those associations useful in facilitating the creation of new cognitive pathways. Research into the efficacy of this mapping technique in identifying and modifying such cognitive pathways is indicated.

Robertson (2010) found that participants from both collectivist and individualist cultures who were not in counselling evidenced the Jamesian (1892/1999) elements of volition, constancy, and distinctness, and the Adlerian (1929) concepts of productivity, intimacy, and social interest. In addition, all self-maps contained evidence of emotional intelligence. In this case study, Olivia’s initial self-map
lacked a volitional or empowering core. It is a reasonable hypothesis that people missing some core or essential elements in their identity construction would have relational or mental health difficulties. Further research is indicated that would examine distinctive patterns of self-construction exhibited by those with a variety of mental health needs.

The two women featured in this study had ancestry Aboriginal to the Americas; however, the method of map construction made no assumptions with respect to identity. While Olivia’s self-map implied a spiritual relationship with the land that may be interpreted as a marker of Aboriginality, Tina’s self-map contained no such markers. Since members of nondominant cultures display a range of identities (Arthur, 2004; Robertson, Holleran, & Samuels, 2015; Snider, 2001), this method of self-mapping placing the client as expert on his or her self has potential cross-cultural applications. Since a spectrum of possible selves also exists in individuals identifying with majority Euro-American cultures (Adair, 2006; Chiao et al., 2009; Ho, 1995; Lalonde, Cila, Lou, & Giguere, 2013), the method of self-mapping proposed here would also be useful in understanding individual identity construction generally.

In summation, the process of self-mapping as outlined here was a collaborative effort that resulted in rapport and self-reflection. The act of participating in the map-making exercise reminded participants of prior interpretive choices made in response to transitional experiences with the implication they could make other choices. Contemplated changes were situated in a holistic representational structure that allowed for a concomitant sense of continuity. Research is needed to determine whether the possibilities suggested by these case examples are realized across wider populations.

Notes
1 Lewin was actually using Euclidian vectors where a line or “edge,” often shown as a directional arrow, is used to represent a directional force. He weighted graphed environmental and psychological forces to reflect the differential strength of each as experienced by the individual.
2 The constructivist notion that we construct our selves from elements of culture is related to Kantian idea that a transcendental self necessarily existed prior to experience so that such experience may be understood. There had to be something doing the constructing before such construction could begin.
3 While the vectors employed by Lewin (1931) were directional, the vectors in this article represent mutual attraction between memes that are thus nondirectional.

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*About the Author*

Lloyd Hawkeye Robertson is on the faculty of the Master of Arts – Integrated Studies program of Athabasca University. He is also a practicing psychologist in northern Saskatchewan.

Address correspondence to Dr. Robertson at Box 647, La Ronge, SK, Canada, SOJ 1L0. E-mail: lloyd@hawkeyeassociates.ca