
Empowering marginalized people by maximizing reflective intelligence: A pragmatist problem solving approach

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Abstract: This paper considers how to catalyze marginalized people's thinking by instilling habits to maximize their use of reflective intelligence. Authors explain intelligence from the viewpoint of American pragmatism and present tools that can empower Iranian single mothers in their daily lives. The case of a single mother who participated in an empowerment project in Iran suggests that reflective intelligence is a dynamic process that can be strengthened by using pedagogical tools. The authors present a model of the intelligent method for further evaluation and application in empowerment-oriented social work practice among poor and marginalized groups.

Keywords: Pragmatism, Intelligence, Empowerment, Problem-Solving, Iran

1. Introduction

The struggle against marginalization and poverty has for decades been one of the most important issues at the global political and humanitarian agenda. Suggested remedies to the poverty problem at the level of national states have ranged from fighting corruption [1] to introduction of neoliberal market models and stimulating trade [2]. At the personal level, the most well-known strategy has been microfinance. These programs were introduced in the 1970s as a means for creating income generating projects by provision of credit and savings services above all to poor women lacking formal education. Such individual economic empowerment has been highlighted in global policy making as a line of attack to reduce gender imbalance and to improve the social status of women [3]. However, more recent applied research has shown that microfinance programs do not in practice deliver the long-term outcomes among the poor and marginalized that have been claimed. The loans are often not used for the establishment of income-generating activities, but for immediate consumption [4]. Other individual-level means for empowering marginalized people are thus urgently needed.

Empowerment can happen at different levels, including the cultural, structural and personal. However, as Thompson & Thompson [5, p. 69] indicate, personal empowerment is a prerequisite for other forms of empowerment and "further

developments are unlikely if individuals do not recognize and, take advantage of, those aspects of their life over which they have direct control." We should notice that "the personal level applies collectively as well as individually—that is, personal empowerment can be a shared experience and does not have to be restricted to isolated individuals." This paper presents the theoretical background and operationalization of an approach for attacking the global marginalization problem based on empowerment at personal level. Marginalized people are supported in improving their quantity and quality of thinking by instilling habits to develop the use of reflective intelligence, and assess how this thinking applies in dealing with problematic issues in their everyday lives. We first present a theory of intelligence based on American pragmatism, and then operationalize and apply this theory using a pedagogical method aimed to foster better problem solving skills and habits of reflective thought in everyday life. Thereafter, we exemplify the theory and pedagogical method by analysing the narrative of a single mother who made use of this model by participating in an empowerment project in Iran.

2. Theoretical Background

Long ago, Aristotle [6] discussed three forms of knowledge, which he categorized as episteme, techne and phronesis. The first is theoretical knowledge, the second refers to skills or "know how," and the third is practical

knowledge. The American pragmatist John Dewey [7, p. 14] helped us to bind these three types of knowledge together by arguing that philosophy should devote its activity to improving our lives and theory should serve practical conduct. He argued that the distinguishing characteristic of modern life has to do with the individual who does not simply reason about truth in the abstract, but makes it his/her own in the most intimate, personal, and practical way. Reviewing Dewey's ideas Fenstermacher and Sanger [8, p. 477] clarify this point:

People are the significance of the problem of knowledge, for it is in coming to know, in being knowers, that they are enabled to be free, to be intelligent, and to act rightly and well. As people link sense and reason, philosophy and science, theory and practice, mind and matter, in the solving of problems and the resolution of confusion, they realize their potential, their power to understand and to control. Thus the significance of the problem of knowledge is what enables the human race to do and to become.

Artistotle's episteme, techne and phronesis and Dewey's emphasis on the relation of theory to practice and "people as the knowers" sets the foundation for a constructionist account of knowledge. However, the early American pragmatists also considered the relation of thought and action to our biological hardwiring, asking how habits are built up in practical environments of action. For example, William James [9, p. 130] acknowledged that the choices people make are important not only due to their immediate consequences, but also because they become through their neural networks, etched into habits and predispositions: "Could the young but realize how soon they will become walking bundles of habits, they would give more heed to their conduct while in the plastic state." The work of John Dewey and George Herbert Mead also long considered human action as formed largely through tendencies to act brought on through patterned, generalized habitual responses to social stimuli. Mead [10, p. 129] wrote that "the consciousness of attitudes, of muscular tensions and the feels of readiness to act in the presence of certain stimulations" forms the initial impulse to action that is then delayed, leading into the process of reflective thought. It is here that individuals are able to present new sets of stimuli through planned actions, which then allow the individual to exhibit new habitualized responses. This is where the individual is able to "test out" new plans by playing them out internally prior to action; it is this self-reflective capability, with the aid of symbols and representations as well as the internalized imagining of others' views, that separates human intelligence from that of lower animals. Thus, it is not that humans are devoid of immediate impulses to act; rather, it is that unlike animals, human impulses can be delayed and reflected upon internally through the process of self-communication, such that the best choice can be made out of the continual interplay and testing of the "I" (impulsive response) and "me" (judgment of the self from the viewpoint of the social community).

Is this capacity for reflective intelligence a constant,

however? Do we always delay impulsive responses appropriately in problem situations? How long do we reflect in different circumstances, and are we maximizing our capacity for reflective intelligence as much as we might? Mead [10] says little about this *variable* nature of reflectivity and the exercise of intelligence across situations, and even less about how heightened emotional states may minimize the discipline we put into the process of reflection when choosing a line of action. Yet surely the habits people develop to either minimize or maximize thought have major implications for the effectiveness of decision making in life. Indeed, the little time people tend to spend thinking when they ought to has been a concern for many important philosophers of the mind. For example, William James [9, p. 1141] observed that the "immense majority of human decisions are decisions without effort. In comparatively few of them, in most people, does effort accompany the final act" when the decision is determined.

In an attempt to address this problem, Baron [11, p. 66], an expert on the psychology of thinking and decision-making, wrote that "people do not follow normative or prescriptive models—that is, they do not think in the best way... Our job is to figure out *why* the human race is getting C grades rather than A grades—and whether anything can be done about it" (emphasis in original). Dewey believed that the discrepancy between how people think and how they ought to think is "a difference like that between good and bad farming, or good and bad medical practice" (quoted in [12, p. 51] James [9, p. 990] wrote that a human being "is, par excellence, the educable animal," implying that positive habits for thought can be learned for long term growth. In summarizing Dewey's ideas about education, Hildebrand [13, p. 125] wrote that its "purpose is to prepare us to survive and, hopefully, flourish in a future that is by nature uncertain. This is best provided by enabling each child to take full command of her own powers, rather than merely fashioning her to fulfill society's needs." This represents well both Dewey and Mead's philosophy of education, which is to develop the student's capacity for reflective thinking [14, 15].

2.1. Pragmatic Intelligence

Faith in the power of intelligence to imagine a future which is the projection of the desirable in the present, and to invent the instrumentalities of its realization, is our salvation [16, p. 69].

The concept of intelligence is important in both Dewey and Mead's works, viewing humans as evolved social organisms who use intelligence to address their problems of living [12, 17]. Establishing a pragmatist model of intelligence shows how this notion has been conceptualized holistically, connected to our natural evolution in challenging environments. For example, the pragmatist James Hayden Tufts [18] considers four factors as necessary to understand the nature of intelligent human conduct: (1) humans are organisms with instincts and emotions necessary for survival; (2) humans are social beings who enter into groups, communicate, mate, and cooperate; (3) human intelligence

and reason are interrelated with experience and should be viewed holistically, enlarged in imagination; and (4) humans are unique in their capacities for judgment and choice, in which different elements are brought together for action and evaluation. Thus, in our description of a pragmatist account of intelligence, we consider four aspects of intelligence as: (a) adaptive; (b) volitional; (c) reflective; and (d) creative.

On the influence of Darwin on philosophy, Dewey [14, p. 68] wrote: "The progress of biology has accustomed our minds to the notion that intelligence is not an outside power presiding supremely but statically over the desires and efforts of man, but is a method of adjustment and conditions within specific situations." Similarly, Mead [19, p. 345] thought of intelligence as a necessary, innovative response of organisms to the emergent challenges of the environment:

[I]ntelligence... lies inside of a process of conduct... A plant shows its intelligence by driving down its roots, in its adjustment to the climate. When you get into the animal kingdom, you find much more adjustment... Intelligence consists in the stimulation of those elements which are of importance to the form itself, the selection of both positive and negative elements, getting what is desirable, avoiding what is dangerous. These are the ways in which intelligence shows itself.

Another important aspect in the evolution of intelligence is enacting conscious agency, allowing for the independent causal shaping of one's environment. Dewey [20] emphasized this in his paper "The Reflex Arc Concept in Psychology," arguing that behaviourist assumptions of a stimulus-response model of conduct are unsatisfactory, since even lower organisms are able to actively seek out so-called stimuli, shaping their own environment, acting and reacting accordingly to the phenomena with which they orient themselves [17, 20]. Dewey [16, p. 10] wrote that "adjustment to the environment means not passive acceptance of the latter, but acting so that the environing changes take a certain turn." In this way, intelligent activities are about using and controlling means for achieving certain ends. But, one might ask, who determines these ends? Related to this pragmatist conception of the relative autonomy of human intelligence, Moran and Gardner [21] have written about apprenticeship and mastery. Apprenticeship refers to the ability to coordinate the biological and the cultural, the internal and external, toward goals that are determined by one's social environment. Mastery, on the contrary, is about the ability to posit and pursue individually conceived goals. Here, authentic agency emerges—self-directed, intentional goal setting, decision making, and action, rather than simply behaviour that responds to environmental cues. Moran and Gardner [21, p. 32] wrote that education should be enlarged in order "to play a role in aiding transformation from apprentice to the master stage." Mead [10] also believed in the autonomous, self-directed nature of human intelligence, and used this to argue against John Watson's program of psychological behaviourism. People cannot be treated as billiard balls according to the laws of the physical sciences, conceived of

merely in a responsive role to the environmental stimuli they happen to encounter. Rather, people can exercise a conscious and relatively independent causal role in choosing, orienting toward, and to some extent, controlling the environments in which they find themselves, such that organism and environment are related dialectically, through a mutually adaptive process. It is within this dialectic that people make deliberate choices, exercise volition, and become agents of change in their social and physical environments of action.

The most important aspect of human intelligence for the pragmatists, and which separates humans from lower animals, is language. For Mead [10], language finds its basic unit in the shared, "significant symbol," which enables people to mutually indicate things in the environment using some sort of abstract representation that effectively generates the same "meaning" (understanding of and attitude toward) whatever that symbol refers to. As more and more social acts, practices, and meanings are communicated, the number of significant symbols would multiply and expand, accumulating into a complex language. The communication and social interaction that is first enabled through shared gestures, and then linguistically using language, is internalized into the child through its mental development. As such, the child acquires the ability to self-communicate, experienced as a social dialogue in the mind, to consider complex lines of action internally before playing them out. This enables what Dewey and Mead referred to as "reflective intelligence," where the internal conversation uses symbols (acquired from social interaction) to represent complex potential future events, and develop logical representations and chains of thought not previously possible [22-23]. Without language, such peculiarly human feats as poetry, abstract physics and mathematics, practical engineering, and the nuances of social etiquette and cultural knowledge could not be possible.

The final aspect of human intelligence that separates it so profoundly from other forms of life is its intrinsically creative quality. Pragmatists referred to the concept of "creative intelligence" and Dewey and Addison More [24] were the editors of the book *Creative intelligence: essays in the pragmatic attitude*. Dewey's early work is more about intelligence as a capacity to adjust to the environment, while his later work puts more emphasis on creativity and novelty, projecting new ends and then assisting in their realization [16]. Dewey moves back and forth from biological functions to characteristics that need higher cognitive functions like thinking, reasoning and planning. Bhattacharyya [25, p. 189] argues that for Dewey, "intelligence can be seen both as adjustive and creative, adaptive and imaginative." Hans Joas [26] argues that this pragmatist emphasis on creativity demonstrates the weaknesses of behaviourist, normative, and rational-choice theories of human conduct, and other positivist approaches; in a sentence, creativity is seen as crucial to an understanding of human thought and action. For Joas, any social science that is to account adequately for the human condition must begin to take this important aspect of creativity seriously. Creative intelligence is an autonomous form of intelligence—it is not imprisoned by the immediacy

of the present—and it is free to focus on the potentialities of the future [27].

It seems that beyond the basic notion of adaptation, human intelligence is predicated on autonomy, reflective deliberation through the use of language, and creativity, to imagine possibilities in the future. As both Dewey [16] and Mead [15, pp. 115-148] emphasized, education and learning play a crucial role in moving us toward the reflective, creative pole of intelligence, granting us further autonomy and control over our external environments of action. With education, positive habits could be formed to encourage a slowing of impulsive responses, a delaying of simplistic, and stimulus-response forms of intelligence. At the same time, positive learning habits could be adopted to improve the ability to instead consider multiple lines of action, weigh them reflectively and communicatively, imagine multiple future possibilities, and in so doing, gain a greater sense of autonomy and self-control in one's everyday life. The following sections of this paper explore a social work model that is designed to develop these very qualities of the distinctly intelligent method, to allow a naturalistic study of intelligence that is sensitive to how it grows through practice and application in real-world settings.

2.2. Operationalizing Pragmatic Intelligence

Herbert Blumer [28] used the case of intelligence to argue for his critique of mainstream social science methods, and his preference for the methodological position of symbolic interactionism. Blumer argued that the abstract and detached qualities of IQ tests, designed reliably and accurately by psychologists, are nevertheless artificial in nature and hence largely invalid, since they are removed and detached from the real world of everyday experience where the intelligent method is actually used. Blumer [28, p. 31] explains his position in the following:

[T]he concept of intelligence refers to something that is present in the empirical world in diverse forms and diverse settings... as an example... the skilful military planning of an army general, the ingenious exploitation of a market situation by a business entrepreneur, effective methods of survival by a disadvantaged slum-dweller, the clever meeting of the problems of his world by a peasant or a primitive tribesman, the cunning of low-grade delinquent girl morons in a detention home, and the construction of telling verse by a poet. It should be immediately clear how ridiculous and unwarranted it is to believe that the operationalizing of intelligence through a given intelligence test yields a satisfactory picture of intelligence. To form an empirically satisfactory picture of intelligence, a picture that may be taken as having empirical validation, it is necessary to catch and study intelligence as it is in play in actual empirical life.

We find inspiration in Blumer's argument, and build on a pragmatic understanding of intelligence to assess how this can be used more or less successfully in real life situations. However, rather than simply studying the range of situations in which the intelligent method is used to solve concrete problems, we also ask how individuals can improve their

capacity for reflective intelligence [10], particularly in instances of heightened emotional experiences, and pressing external problems posed in the social environment. Applying theory and empirical research to improving practical, real life scenarios has long been discussed as a vision of the American pragmatists. James [29, p. 21] wrote that theories can become instruments that help us move forward: "Pragmatism unstiffens all our theories, limbers them up and sets each one at work."

To help operationalize intelligence, we introduce a pragmatist conceptual framework. This framework provides a theoretical context for the development and evaluation of tools that can be used to visualize how people make day-to-day decisions and how they can improve their situations by learning and using these tools in their lives. Decision-making is a complicated processes that is inherently action-oriented. It is an umbrella concept that necessitates the understanding of associations between reasoning, emotions and goals. We also need to comprehend how people consider the resources and barriers that impede against reaching their goals. To conceptualize life as a decision-making process has many advantages. As March [30, pp. 271-272] has indicated the "elegance and beauty of human life is augmented within a vision of decision making, and human spirit is elevated. The idea of decision making gives meaning to purpose, to self, to the complexities of social life." American pragmatists believed that nothing is complete, and that human decisions and actions create and recreate life and the world [29]. Such reflective intelligence and the exercise of decision-making are crucial for social work, which needs action-oriented theories. The person-in-environment formula shows the core process in reflective intelligence, i.e. how different factors in the interaction between an individual (A1 and A2) with her/his environment (B1 and B2) determines the probability of achieving a goal (C) (Fig. 1).

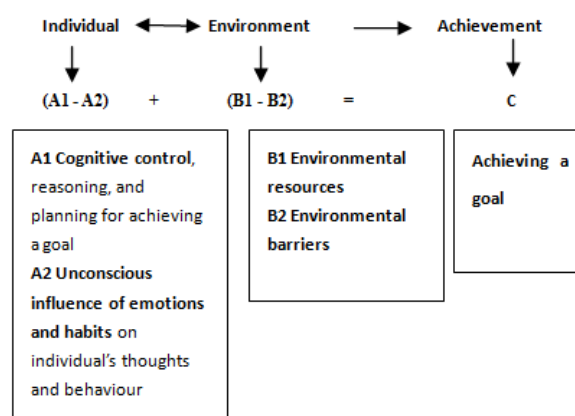


Figure 1. Moula's person-in-environment formula.

The main assumption underpinning the formula is that cognitive control works its way through emotions, and habits, in order to gather resources, and exercise creative problem-solving to achieve life goals. Dewey [14] emphasized that if one's actions are not guided by thoughtful conclusions, they are guided by inconsiderate impulse,

unbalanced appetite, or the circumstances of the moment. Dewey wrote that a teacher will have no difficulty in seeing that the real problem of intellectual education is the transformation of natural powers into tested powers. One of the aims of education is to develop intelligence of an independent and effective type, resulting in a more disciplined mind. Following James [9], Dewey [14, 31] was very conscious about the power of habits in our lives. He wrote that emotions and habits play a crucial role in human beings' behaviors, however, there is nothing that stops reasoning itself to become habitual:

[I]f not habits of careful looking into things, then habits of hasty, heedless, impatient glancing over the surface; if not habits of consecutively following up the suggestions that occur, then habits of haphazard, grasshopper-like guessing; if not habits of suspending judgement till inferences have been tested by the examination of evidence, then habits of credulity alternating with flippancy incredulity, belief or unbelief being tested, in either case, upon whim, emotion,

or accidental circumstances [14, p. 66].

Dewey argued that reflective thinking involves not only a sequence of ideas, but a *consecutive ordering*, such that each idea determines the next as its logical outcome, which in turn, leans back on its predecessors. "The successive portions of reflective thought grow out of one another and support one another; they do not come and go in a medley." Each phase is a step that reaches a conclusion, which is then used for the next phase, and next conclusion, and so on. However, reason does not happen for its own sake, since Dewey [14] emphasized that reflective thought is only enabled when we meet a problem. This is akin to [32, 33] Rahyab model for problem-solving using consecutive steps. This model can be seen as a representation for what Dewey [14] and Mead [10] call "reflective intelligence." It provides a means to operationalize intelligence with reference to pragmatism, inspired by the framework of social work practice and empowerment.

Table 1. The Rahyab model.

Capacities to develop	Steps in problem solving
Organize thoughts and emotions through storytelling or story writing	1. <i>Define your situation and identify a problem.</i> You may talk to a friend or a family member but YOU are the expert of your own situation. You have lived your life and have experienced its ups and downs. You may pick up a piece of paper and a pen and describe the problem that most engages you. Simultaneously find out how your <i>thoughts</i> and <i>emotions</i> are involved in the situation you try to define. It is also important that you consider your relationships with significant others (family members, friends, etc.) who play an important role in your life and especially in the situation that you want to define
Identify desires, strengths, and necessary changes	2. <i>Identify (a) your desirable situation, (b) your strengths and (c) what is it in the problematic situation that you want to change.</i> Consider how your emotions/feelings are related to your desires. What do you feel when you think about the changes that you wish to make? Consider your relationships with significant others. How do these people affect your desires? When you think about necessary changes, what role can these people play in bringing about these changes? You should also think about how these changes can affect the lives of other people
Mindfully consider various alternatives	3. <i>Imagine and map several possible alternatives.</i> Think systematically to find out which alternative may help you move from the problematic situation toward the desirable situation. This includes thinking about (a) the possible consequences of each alternative, (b) the resources that you can identify and use to realize the chosen alternative, and (c) the barriers that can impede each alternative (it is hardly possible to manage this step of the model without writing your thoughts on paper). Consider: <ul style="list-style-type: none"> Your emotions/feelings with regard to these various alternatives How each alternative can affect the lives of others, and which roles others can play in realizing each alternative. Other individuals can be a resource for realizing an alternative or they may be a barrier How are your values attached to different alternatives? It is crucial that you are aware how your values influence the choice or rejection of any alternative
Choose the best possible alternative, define a goal and plan for action	4. <i>Plan to realize your goal.</i> Your goal relates to and gains strength from the desire that you identified in step 2. Now, after considering several alternatives (step 3) and in line with the possibilities of realizing each, you can choose the best alternative and then formulate your goal accordingly
Evaluate and learn from the situation	5. <i>Evaluate the situation</i> and learn from this for future actions

3. The Rahyab Tool to Operationalize Pragmatic Intelligence

Senge and Scharmer [34] suggest that if people are to change how they think, they require tools to assist them. Vygotsky [35] introduced the idea of a psychological tool,

emphasizing that the use of such tools in the process of interaction with the environment modifies mental processes. Psychological tools are symbolic and cultural artifacts like signs, symbols, texts, and most fundamentally, language. These enable human beings to master psychological functions like memory, perception, and attention in ways that are appropriate to our cultures [36]. Blunden [37, pp.

151-152] writes that the “use of any artefact has the effect of restructuring the nervous system, turning the natural nerve tissue into a product of cultural development, bearing the stamp of human activity while obedient every moment to the laws of nature.” Human brains and minds are shaped through individuals’ interactions with their environment, and tools mediate an important role in this interaction process.

Rahyab is a Persian term translated as “finding one’s way,” and was chosen as a fitting label for the development of a specific psychological tool to intervene on and bolster reflective intelligence. This tool has been in use in social work in Iran and Sweden since 1997 and is target of several action research projects in these two countries [32, 33, 38, 39-43]. In 2000, the tool was presented to non-governmental organizations and social work departments at two universities in Iran. Since 2006, based on an initiative from UNICEF and in cooperation with the Iranian National Social Work Office and a section of the Ministry of Health, courses have been arranged where social workers, psychologists and psychiatrists have learned Rahyab and have taught it to other practitioners.

4. A Case Study for Rahyab: The Narrative of a Single Mother in Iran

We used narrative analysis method in the case of a single mother, to investigate how she had changed the quantity and quality of her thinking, by instilling habits to improve the use of reflective intelligence. Narrative analysis is a method to systematically examine the life-stories of people [44], particularly, those involving important incidents in people’s lives [45]. In 2008, the second author started an action research project in a large urban community in Iran. Through a local welfare organization (Behzisti), 15 single mothers participated in the project and voluntarily joined group and private sessions during a period of seven months. The participants used the *Rahyab* tool to both solve fictive problems in group sessions, and solve real-life problems in private sessions and personal life situations. We analyze data from one of these women, who we call Hortensia. This data includes what she wrote during the project and her evaluation after the project. In her narrative, written 17 months after the end of the project, Hortensia reflected on her situation, what she had learned, the decisions she made, and the changes that had occurred in her life and relationships. Using narrative analysis, the text is organized into a six-part structure (1) an abstract that summarizes the general proposition that the narrative exemplifies, (2) an orientation that gives details of time, place, persons and situations, (3) a complication that refers to a crisis or problem, (4) an evolution that highlights the point and distinguishes it from other issues, (5) a resolution that shows results or solutions to the complication, and (6) a coda to finish the story [45-47]. We used Moula’s person-in-environment formula to structure the resolution and coda. Ethical approval for this project was given by welfare organization (Behzisti-Iran).

4.1. Hortensia

After being exposed to Rahyab, Hortensia’s life evolved in four phases: (1) definition of life problems, re-conceptualization, and establishing agency, (2) enhancing relationships and taking ownership of the problems; (3) taking a new perspective on the environment, and fostering patience and confidence, and (4) achieving confidence through reflective intelligence. After the project, Hortensia’s narrative highlighted three specific issues related to tools supporting reflective intelligence (1) a significant change in cognitive habits, from putting her trust mainly in God to trusting in herself; (2) a tranquility needed to start achieving her goals with clarity; and (3) the realization that this psychological tool was easy to learn and use, even though Hortensia only had elementary formal education. She eventually went on to teach Rahyab to others.

4.2. Initial Orientation

At the start of the project, Hortensia was a 36-year-old single mother who did not have permanent employment. She had three children of her own and had the custody of one child from her previous marriage. Following her father’s suggestion, she married a new husband who was twenty-eight years older than herself. However, this man soon left Hortensia and her children’s lives. The main contribution from this husband to Hortensia’s family was a new child. Once more, Hortensia was alone, this time with financial problems and the challenge of raising five children. As she herself put it, she was “the mother, the father and the lone care-taker.”

4.3. Complication: Problem Recognition, Re-conceptualizing and Establishing Agency

When Hortensia joined the project, she reported financial problems. She also complained that her 16-year-old boy had left high school in order to find a job. She worried that he listened more to his friends than his family, and was jeopardizing his future by leaving school. Before joining the project Hortensia thought that she had been a good friend for her children. Now, after joining the project, she is wondering what is wrong in her interaction with the children. According to Hortensia’s understanding, *Rahyab* suggested that people can trust their own abilities to move forward, while God will help in this pursuit. Before attending the *Rahyab* sessions, Hortensia slept well by trusting God to get support. However, after three private and group sessions, she told the second author that she had difficulty to sleep at nights. In the past, she did not worry about not having enough money to pay her rent, since she trusted in God. Now, she took the initiative to actively think about and take responsibility for the problem. By this point, paying the rent had become her own duty, which was an awakening for her. In effect, Hortensia had not only re-conceptualized the problems facing her (paying rent), but has also placed herself in charge of her problems, and hence, established a greater sense of agency over her own affairs.

4.4. Evolution (Step 1): Enhancing Relationships & Taking Ownership of Problems

Hortensia continued to join individual and group sessions, ten more in total. By this point, she began to report a change in attitude toward her children. She now understood that she had several children that required equal priority; she should not only think about her son and forget her daughters. With this, she also started to think more about her children's nutrition and health. Hortensia then put an effort into developing an improved understanding of her children's perspectives, and tried to use these to foster a greater sense of mutual understanding. "I understood that my expectations on my son should not be only according to my own values but also take into consideration my son's desires and interests." Hortensia began to learn how to use the *Rahyab* model to reflect upon her daily life. She wrote "I should not only think about paying my expenses [for example by borrowing from relatives] but consider different options for finding a job." By applying the model, Hortensia decided to get a financial contribution from the social services office in order to buy a tailoring machine. To establish this, she met with her social worker. Here, Hortensia actively talked about her problems and how to solve them, which was a big change from her previous responses to difficulties. Hortensia told the social worker that she felt like an active participant of the *Rayhab* project, which had helped her to better comprehend and master her life situation. In parallel to putting her hope in God, a person gains self-confidence from being active in making her own decisions. Indeed Hortensia concluded: "*Rahyab* clarified that being satisfied with present possibilities and accepting present situation leads to barriers for more success and stops one's development."

4.5. Evolution (Step 2): Meeting Problems with Patience and Confidence

By the end of the program, Hortensia reflected differently on her environment, as well as her own position in it. She explained that "in interaction with my son who left school, I had many problems and could not find a solution to them, until I joined this project. Then I could change my temperament, be gentler, and give my son more chances to act on his own... So far I have not been completely successful. However, I do not have as much anxiety and my son has had the chance to find out things on his own. The emotional relationship between us has improved and we understand and respect each other... Even if the financial difficulties are the same as before, I have learned to meet these challenges with a new understanding and patience. I have learned to wait and think carefully about what I should do, using my limited time to best meet the challenges in my life... Time management and self-confidence helped me to be active and move toward realizing my aims. Financial problems are still putting pressure on our family, but I have changed. Hope has come alive in me, and I am much more conscious and more focused in looking for solutions."

4.6. Evolution (Step 3): Achieving Lasting Confidence through Reflective Intelligence

Hortensia summarized what she "took-away" from the *Rahyab* project in a few sentences: "During the project more and more I understood that empowering ourselves is that promising light. I found out how to use my healthy body, and the power of thinking and reasoning as the gift of God to us humans, to meet life's problems. It helps to prevent me from deciding in a hasty manner and without thinking... Through using the model, especially step three and four, I tried different job possibilities, like tailoring, and I am preparing myself to drive special taxis devoted only to women..." Hortensia did not learn to think through the project. However, she learned to *think more systematically*. She wrote "I realized that empowering an individual in problem-solving situations is the window of hope that appears to save us from badly puzzling situations."

4.7. Resolution and Coda

"Thinking" was Hortensia's favourite expression in her narrative. She used the term to illustrate how she had discovered the power and joy of reasoning. For example, she wrote "I need to give more room to my thought" and "I should not deprive myself from deep thinking". From a life management perspective, Hortensia's conquest of thinking (A1 in the person-in-the-environment formula) appeared to have provided her the possibility for coping with life problems or at least reaching tranquillity, especially in situations where the resources in the environment (B1 in the formula) were lacking. She identified a direct association between the *Rahyab* tool and reflective thinking when she wrote: "the model helps me to identify my problems and see them more clearly" and "the model helps me to think deeply and make my thoughts creative, especially by writing down my problems and not behave in a rush." Describing this association more figuratively, she wrote "the model is a mirror that its transparency and especial clearness helps us to see ourselves in a better way and understand how our own faults and problems can become a barrier impeding against solutions of the main problems of our lives." Regarding control of habits and emotions (A2 in the person-in-the-environment formula), she repeatedly referred to how she had changed her habit of relying on God for solving her problems to relying on God in parallel with relying on her own ability to think and act. She also indicated that her emotional relationship to her son had changed and they understood and respected each other more than before. The weakest points for Hortensia were the resources in the environment (B1 in the person-in-the-environment formula). During the entire project, she was a single mother who had to take care of five children with only a part time job. Her overall judgment of the project outcome (C in the person-in-the-environment formula) is interesting. She wrote that her economic situation had not changed radically as a result of the project, but that her relationship to her son had improved. She understood that she should not impose her

own desires on her son. She repeated several times that *Rahyab* had helped her to reach tranquillity. This was unexpected for the social workers and researchers in the project. We wondered how one could have such tranquillity in spite of these severe problems. Hortensia gave a surprising answer to this question when she thoughtfully, like a chief executive officer of her family, divided her problems into: (1) those that she solved through hard struggle, (2) “problems” she had learned not to address or to define as problems as such, and instead learn to live with them, and (3) problems she expected to solve in near future. Through her problem classification, Hortensia taught the social workers that a single mother can have tranquillity and a sense of personal empowerment even in the face of severe problems.

5. Discussion and Conclusion

In this study we draw heavily on pragmatism, a perspective formulated by the American philosophers and scientists during the last century. Pragmatism is the most popular philosophy in North America even in this century [12]. Pragmatism is even popular in Europe, for example, some European philosophers believe that John Dewey is a philosopher for 21st century [48]. At the same time, during the last two decades, an intellectual movement has succeeded to gather a group of sociologists, psychologists, neuroscientists and philosophers under the umbrella of “neuropragmatism” [49]. This is a promising integration of pragmatist philosophy, neuroscience and social science. These scholars who believe that neuroscience has revitalized pragmatism integrate the old with the new and provide a conceptual framework that can be used in intervention research within social sciences [39, 49-50]. Although in this study we limited our conceptual framework to pragmatism in other places we have paid a contribution to this emerging perspective called neuropragmatism [39, 49-50].

Marginalization and poverty is perhaps the most important global humanitarian problem today. With a point of departure in Aristotle’s classification of knowledge - episteme, techne and phronesis - we set out to operationalize a pragmatist theory of intelligence into a person-in-environment formula and a problem-solving tool. We then applied the tool in a case study involving an Iranian single mother, and used the formula to structure the resolution and coda of her narrative. From a pragmatist viewpoint, beyond a basic notion of adaptation, intelligence is predicated on autonomy, deliberation through the use of language, and creativity, to imagine possibilities in the future. We found that after adopting the *Rahyab* tool, the single mother involved in the case study showed development in all these areas, i.e. self-development, an improved capacity for cognitive change, and respect for her children’s wishes for the future.

Using problem-solving models have been a long tradition in social work [51-53]. However, these models have seldom been taught directly to socially marginalized populations. Hortensia and her single-mother peers in the Iranian project had no higher education but after participation in the

empowerment project they could use the tool on their own. This leads us to question whether higher education is necessary for learning and using a problem-solving model. Baron [11, p. 5] points out that “Thinking is important to all of us in our daily lives. The way we think affects the way we plan our lives, the personal goals we choose, and the decisions we make. Good thinking is therefore not something that is forced upon us in school: It is something that we all want to do, and want others to do, to achieve our goals, and theirs.” If marginalized people learn to understand how they think, they can also use this comprehension to think more reasonably in order to achieve their specific goals. Not only medical and business decisions, but also making ordinary life choices are, in their most general sense, about finding and selecting among possible actions, beliefs, and goals. Cognitive behavioural therapy, which aims to change dysfunctional thought into functional thought, has been overwhelmingly successful for decreasing anxiety, depression and destructive behaviour in clinical populations world-wide [54]. It may be that the pragmatist decision-making tools we propose here can become equally successful for helping others who may be lacking formal education, to better exercise reason in socially challenging situations. From a global social work perspective, the need to support problem solving capabilities in marginalized populations is immense.

This study does of course not claim to have presented the solution to global marginalization and poverty. Still, the results of another study of the single mother project that Hortensia was one of its participants show that Hortensia was not an exception. The other fourteen women in the project learned and used the *Rahyab* model effectively and, consequently, made more deliberate decisions to improve their life situations. All had changed their pattern of thinking, which, in turn, led to better control of their emotions and behavior. A majority of the women improved their family relationships and almost half had improved the financial situation of their family [40, 42]. A third investigation of the same group—a nonrandomized quasi-experimental study—shows that through participation in this research project these marginalised women succeeded to improve both their physical and psychological health [40-41]. However, further studies evaluating the use of this tool in larger groups and heterogeneous populations are necessary before a more widespread dissemination can be recommended. In conclusion, we suggest that pragmatic intelligence is a dynamic process that can be strengthened among poor and marginalized people. This study described the theoretical foundation for such a process, a tool, and its application in a case study.

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