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# Breaking the Poverty Trap: A Psychological Framework for Facilitating Autonomous Motivation and Sustainable Behavioral Change in Development Aid Beneficiaries

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# **Breaking the Poverty Trap: A Psychological Framework for Facilitating Autonomous Motivation and Sustainable Behavioral Change in Development Aid Beneficiaries**

Nobuo R. Sayanagi<sup>\*,†</sup>

## **Abstract**

Workers in the field of development aid, particularly those involved in capacity development projects, have for some time recognized the importance of understanding the psychology of aid beneficiaries. However, there have been very few psychological studies on development aid, possibly because there are yet few tested theoretical frameworks that allow empirical research. The aim of this paper is to present a theoretical framework that would be applicable to aiding, assessing, and researching the psychology of people facing difficulties such as extreme poverty. The framework is based on Self-Determination Theory (SDT) and also draws from behavior modification approaches. It is argued that for such people, as a prerequisite for supporting the need for autonomy, it is necessary to support the needs for competence and relatedness. Based on the modified SDT framework, aid paradigms such as conditional cash transfers (CCTs), the life improvement approach (LIA), the smallholder horticultural empowerment project (SHEP), and the freedom for enhancing empowerment (FrEE) approaches are examined, and future research directions are discussed.

**Keywords:** psychology of development aid, motivation, sustainable behavioral change, behavior modification, Self-Determination Theory

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## 1. Introduction

In recent years, the fight against poverty has seen significant progress. The United Nation's Millennium Development Goals (MDGs) of halving the proportion of people who live on less than \$1.25 a day in developing countries between 1990 and 2015 was met 5 years ahead of the target date (World Bank, 2012, p. 2). Some optimistic predictions claim that extreme poverty can be eradicated by 2030 (World Bank, 2013). With the current Roman Catholic Pope Francis also actively advocating the cause (e.g., "Pope Francis Interview," 2015; Vatican Radio, 2015), global awareness of the topic is increasing.

However, there is still much to be understood, and many misconceptions regarding poverty and the poor. As Banerjee and Duflo (2011, p. viii) remind us, "the field of anti-poverty policy is littered with the detritus of instant miracles that proved less than miraculous." It could be said that these failed policies are based on misunderstandings of the complexities of how those living in poverty behave, and how their subjective experiences influence their behavior.

One pioneering work on the subjective experience of poverty is Oscar Lewis' (1966) classic ethnographic study of Mexican families. Lewis asserted that when people fall into poverty, they form attitudes and behaviors to cope with the economic deprivation. While these attitudes and behaviors may help them get by on a day-to-day basis, oftentimes they decrease their long-term chances of escaping from poverty. Additionally, these attitudes and behaviors are passed on through socialization to subsequent generations, causing a vicious cycle that has come to be known as the poverty trap (e.g., Pick & Sirkin, 2010; Sachs, 2005).

Lewis' (1966) assertion that poverty is a culture has been frequently criticized. The crux of these criticisms is that his depiction of the characteristics of poverty, including alcoholism, domestic violence, and inability to delay gratification or plan for the future, encourages thinking that poverty is due to cultural inadequacies of the poor (Tuason, 2002), and "[do] not envision any room for dynamic self-improvement" (Carr, 2013, p. 17). In fairness, Lewis did note the

positive and adaptive characteristics of the poor, and stressed that they should also be taken into account. Nonetheless, many policies and projects based on his thinking indeed only focused on “remedying the pathological traits” of the poor (Goode, 2010), rather than building on their strengths. This kind of victim-blaming, based on the notion that poverty is self-inflicted, makes it difficult to garner public support for the funding and implementation of anti-poverty projects and policies. There is a tendency of humans, known as the classical social psychology concept of the *fundamental attribution error* (Ross, 1977), to overestimate the internal characteristics of an agent and underestimate contextual factors regarding the causes of another person’s behavior. That is, people are predisposed to perceive that a poor person’s behavior is a result of their character even when the reason for the behavior is due to context of their environment. This bias itself makes it difficult to rally support for the poor. It could be said that the “culture of poverty” thesis (Lewis, 1966) inadvertently exacerbated this underlying human bias towards those who are impoverished.

The victim-blaming view of poverty is problematic in a number of other ways, too, but this paper will focus on two of such. First, as Lott (2002) asserts, even well meaning efforts on behalf of low-income people can be predicated on assumptions about their inferiority, and can ultimately hinder their advancement (p. 108). In other words, to effectively and ethically provide support for those who are poor, it is important to understand their subjective experiences and their strengths and preferences. The second, and perhaps more important reason that victim-blaming is detrimental, is that it flies against the body of evidence which supports the current dominant thinking that the major cause of poverty is the lack of opportunity rather than faulty cultural or personality traits (see Sen, 1999 for a comprehensive review and thesis). For anti-poverty policies to be effective, they must address the root cause of poverty (i.e., lack of opportunity) rather than its artifacts (i.e., the so-called pathological cultural/personality traits).

But would simply implementing policies that provide the poor with plenty of opportunities be enough to alleviate poverty? In his treatise on the Capability Approach, Sen

(1999) gives a strong and convincing argument for the necessity of providing opportunities to the poor, but he is not clear whether *simply* providing opportunities would also be sufficient; he does not directly address the issue, and the lack of attention to the matter gives the impression that simply providing opportunities would indeed alleviate poverty. However, Pick and Sirkin (2010), who have done extensive field work with the extremely impoverished, point out that “objectively having opportunities is not sufficient: the individual must perceive having access. In other words, a person must emotionally and cognitively see the opportunities and understand that he has the right to access them, that he need not feel ashamed, fearful, or guilty for making use of them” (p. 6). That is, there are *psychological* barriers even when “objective” barriers have been removed. Additionally, there is evidence that even when all barriers, whether objective or psychological, have been taken down, such opportunities are not well used. For example, Neuman and Celano (2012) showed in a series of studies that due to differences in parental supervision and other habitual factors, poor children are not able to gain as much information capital from libraries as their peers from more affluent families, even when they are able to use facilities that were on par with their more privileged peers. This study’s subjects were children, but it would be reasonable to assume that the same would apply to adults living in poverty.

The ultimate goal of many anti-poverty policies is to change the behavior of the poor in a manner that would help them break the vicious cycle of poverty. However, the fact that many policies have failed is a testament to the difficulty of changing the behaviors of the poor, even if ample opportunities are provided to change in a way that would help them escape from poverty. Furthermore, studies such as Neuman and Celano (2012) suggest that simply providing accessible opportunities may not be enough, and additional support measures may be necessary for the poor to be able to fully utilize them.

Some behavioral patterns of the poor indeed keep them at a socioeconomic disadvantage, and in many cases those behavioral patterns are passed on to their children, as Lewis (1966) asserted. While this paper will desist from calling the behavioral patterns of the poor a “culture,”

it will hold that there are certain behavioral and habitual patterns of the poor that make it difficult for them to improve their livelihoods, and that such patterns are difficult to change. One speculation as to why such change is hard to achieve is that when people are born and grow up in a certain environment, they have little opportunity to learn of lifestyles and habits beyond those prevalent in their surroundings. Thus, even when presented with more rational but novel choices, such as would happen when a development aid program<sup>1</sup> is introduced to a poverty-stricken region, the beneficiaries would rather retain the ways that they are used to.<sup>2</sup>

### **The literature on poverty in psychology**

While there has been substantial interest in issues regarding poverty in the field of psychology (e.g., American Psychological Association, 2000), a majority of the studies that have been conducted have been in the context of health and education, especially on the detrimental impact of poverty on developmental, cognitive, and educational outcomes and how to alleviate such impacts in children (e.g., Brown, Ackerman, & Moore, 2013; Keiffer, 2008; McWayne, Melzi, Limlingan, and Schick, 2016; Yoshikawa, Aber, & Beardslee, 2012). Few studies examine the psychological experiences of poor adolescents and adults with the objective of identifying factors that could potentially lift them out of poverty. Psychological studies on the prevention and reduction of poverty would complement and enhance the body of knowledge on anti-poverty policy. As Carr (2013) points out, in the past “most of the thinking about poverty has been relatively macro in kind, and level of analysis” (p. 10), and psychology can meet the deficit in micro needs. The existing anti-poverty studies conducted from the viewpoint of policy and administration focus on *what* we should do to fight poverty. From a psychological viewpoint,

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<sup>1</sup> “Development aid” (also known as international cooperation, overseas aid, or official development assistance) is assistance provided usually with the aim of alleviating the beneficiaries’ state of poverty. Such aid is provided by governments, international agencies, and non-government organizations. Note that the term “development” is used in a different way than in developmental psychology.

<sup>2</sup> Irrational decision-making is by no ways limited to the poor. Countless studies in social psychology and behavioral economics have demonstrated that it is a hallmark of human beings in general, and whole books have been dedicated to the topic (e.g., Ariely, 2008).

however, that is only part of the question: *how* the projects and policies are conducted is also critical for their success. Instead of asking which approach works better, as seems to be the prevailing question in development aid circles, psychology could provide means to explore how each respective approach could be improved to work better, and perhaps more importantly examine *why* each approach does or doesn't work.

In any case, there have been few psychological studies on poverty reduction. Below we shall review the handful of approaches that take a poverty-reduction stance.

In a series of studies, Tuason (2002, 2010, 2013) conducted interviews with people who had lived in poverty in the Philippines. The studies compared the experiences of those who were able to escape poverty and those who remained poor. Both groups were very similar in their subjective experiences, which included not having basic needs met, persisting negative emotions, attributing their poverty to family circumstances, and methods of coping with poverty. The differences were the occurrence of chance events that provided opportunities for education and emigration, underscoring the importance of opportunities.

In the field of development aid, Carr and colleagues have accumulated several studies which have been reviewed in two volumes focusing on psychological issues relevant to anti-poverty and aid, including the fundamental attribution error against the poor (discussed above), the importance of the culturally sensitive attitudes of aid workers and donors, community organization, and aid systems (Carr, 2013; Carr, McAuliffe, & MacLachlan, 1998). These views are indeed important in planning and implementing aid projects, but Carr and colleagues' main focus is the psychology of the aid providers, and there are few data on the psychology of the beneficiaries.

Pick and Sirkin's (2010) Framework for Enabling Empowerment (FrEE), which is based on their fieldwork and aid work with the poor and thus reflects the subjective viewpoint of those living in poverty, offers a more direct approach to providing support for beneficiaries. Their person-centered and culturally sensitive approach is based on the Theory of Planned Behavior



(Ajzen, 1991) and is informed by the Capability Approach (Sen, 1999). FrEE was originally developed through sexual health education for young women in Mexico, and has since been adapted to other educational programs such as domestic violence prevention, parental education, and community development. Pick and colleagues developed their approach through fieldwork spanning three decades, and also provide evidence that their approach is indeed effective. FrEE is certainly informative, and in fact is in many ways similar to the framework to be presented in this paper, as will be discussed in detail later.

That there are few other bodies of psychological studies on development aid is somewhat surprising, as specialists in the field of development aid have long been aware that the psychology of aid subjects is a critical factor in whether programs will succeed or not. Alkire (2005, 2007) has asserted that the psychological dimension of the lives of the poor needs to be brought to the foreground along with the other well-studied dimensions. Kukita (1996) has gone as far as to propose the creation of a field for the psychology of development aid. This seeming lack of interest on the side of psychology is perhaps partially because there are few theoretical frameworks that have been shown to be viable for both practice and research in the context of development aid, and consequently, few empirical psychological measures have been developed to readily allow quantitative research—the preferred mode of study in psychology—in the field. Providing methods for empirical evaluation are crucial in psychological research, and the lack of such is probably another reason that inhibits psychologists, who work in a discipline where there is much pressure to publish in quantity, from entering the field of development aid.<sup>3</sup>

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<sup>3</sup> It should be clarified that the author also strongly endorses qualitative research methods, especially for the initial stages of researching a new field. However, while qualitative research is important, it is inherently time consuming. Providing a systematic framework that would more easily allow quantitative research would lower the hurdle for psychologists aspiring to enter the field of development aid.

## **The aim of this paper**

The main goal of this paper is to present a theoretical framework regarding the psychology of the beneficiaries of development aid that would be helpful in understanding their behaviors and motivations, and that could potentially guide anti-poverty policies to be more effective. The framework would also pave a path for empirical psychological research to be systematically conducted in the field of development aid.

The theoretical framework will be developed based upon Self-Determination Theory (SDT: Ryan & Deci, 2000, 2002), but will also be informed by behavior modification approaches. To one who is familiar with motivational theories, this combination may seem puzzling: behavior modification is based on operant conditioning techniques, that is, using incentives to induce changes in behavior; SDT was developed for the most part by demonstrating the adverse effects of such rewards. Also, behavior modification is generally mechanistic and relatively reductionist, while SDT is humanistic and relatively holistic. However, as will be discussed in detail later, both approaches have their limitations. In a nutshell, the biggest limitations of SDT is that it has been developed mostly through studies with “normative” subjects<sup>4</sup> such as university students and suburban American schoolchildren, where indeed the negative effects of rewards have been robustly demonstrated. There has been little focus, however, on underprivileged subjects, and as a result there is a lack of evidence on whether the theory holds, especially regarding behavioral change, for this group. Furthermore, some studies imply that the autonomy-supporting approaches prescribed by SDT are somewhat ineffective in bringing about behavioral change in subjects who are at a disadvantage. In contrast, the limitation of the behavior modification approaches is that the inducing of behavior change, which has been shown to be effective with subjects of diverse socioeconomic backgrounds but

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<sup>4</sup> The term “subject,” while used ubiquitously in psychology, may be unfamiliar in development aid literature. The term simply denotes the people who are the focus of any given study. The term “normative,” also commonly used in psychological literature, denotes that there is no significant deviance from the majority of a given population.

especially with those with difficulties, seems to be mostly temporary. It will be argued that these two seemingly contradicting approaches in fact are complementary in terms of predicting and promoting *sustainable* behavioral change, especially in subjects facing adversities such as extreme poverty.

Next, the paper will examine existing aid paradigms using the new theoretical framework. Needless to say, anti-poverty approaches in the field of development aid are diverse and abundant. This paper does not aim to conduct an exhaustive examination of the full catalogue of such approaches. Instead, it will focus on a few selective programs that aim, whether explicitly or implicitly, to change the behavior of their beneficiaries. Many of these programs are so-called *capacity development* approaches that aim to enhance the aid beneficiaries' abilities to work themselves out of poverty. Thus, this paper will not look into programs such as infrastructure building, which certainly are important in improving the lives of the inhabitants of impoverished regions but do not aim to induce specific behavioral changes. The anti-poverty programs that this paper will examine will be conditional cash transfers (CCTs) (e.g., Cecchini & Madriaga, 2012; Levy, 2008), the life improvement approach (LIA: Japan International Cooperation Agency, 2013; Tanaka, 2011), the smallholder horticulture empowerment project (SHEP) approach (Aikawa, 2013), and the aforementioned FrEE (Pick & Sirkin, 2010). These approaches were selected because 1) they all explicitly aim to foster behavior that will help the beneficiaries escape poverty, 2) they are all regarded to be relatively successful, and 3) they are all well-defined and administered in multiple areas/projects. Even under this criteria, these four approaches are not an exhaustive list, but for the purpose of this paper, which is to demonstrate the application of the proposed theoretical framework, it should be sufficient. Through this demonstration, this paper will attempt to identify potential factors in capacity development programs that are key to sustainable behavioral change.

Finally, the paper will discuss methods to empirically validate and systematically research the theoretical framework. Such a framework would provide a comprehensive theory

that encompasses operable antecedents that are necessary for sustainable behavioral change, specific guidelines on how to promote such change, and criteria to evaluate the changes in motivation and behavior. Additionally, this framework will be applicable not just to a specific approach, but to any aid paradigm.

## **2. An outline of the theoretical framework**

This section will present outlines of SDT and behavior modification, the two respective theoretical approaches that the framework will be based upon, and following each outline will discuss the shortcomings of each approach. Finally, a modified SDT framework and approach that would be useful in promoting sustainable behavior change, especially in subjects with challenges such as extreme poverty, will be proposed.

### **An outline of Self-Determination Theory (SDT)**

SDT is a relatively new theory in psychology. Its beginnings were studies on intrinsic motivation published in the early 1970s. In his classic study, Deci (1971) demonstrated that giving rewards that are contingent with performance on an initially interesting task *decreases* the amount of subsequent free-choice engagement in the absence of rewards. This phenomenon, the undermining effect, is counterintuitive and also contrary to what behaviorist theory would predict. Nonetheless, these findings are robust, having been replicated time and again (e.g., see Deci, Koestner, & Ryan, 1999 for a meta-analytic review). When a person is intrinsically motivated, he or she is driven by interest or enjoyment in the task itself, rather than aiming to attain an outcome that is extrinsic to the task. Motivation to attain such outcomes, such as to gain a reward or to avoid punishment, is called extrinsic motivation. It is important to note that in SDT, the motivation behind a given behavior is not necessarily single: a student may study to

pass an upcoming exam (extrinsic motivation), but at the same time be studying because she enjoys studying the topic (intrinsic motivation).

SDT studies in the 1970s through the early 80s primarily focused on the conditions that undermine intrinsic motivation: these studies showed that such conditions include not only performance-contingent rewards, but also punishment, deadlines, quotas, surveillance, competition, and evaluation (see Deci, 1975; Deci & Ryan, 1985, for reviews). During this time, intrinsic and extrinsic motivation were treated somewhat dichotomously, with a trade-off between the two (i.e., that the increase of extrinsic motivation would undermine intrinsic motivation).

Since the 1980s, SDT has moved beyond the intrinsic versus extrinsic dichotomy. Extrinsic motivation is now considered to have more autonomous and heteronomous states. For example, a student may study because the subject is important for their chosen career, or they may study because they do not want to be scolded by their demanding parents. Both reasons are extrinsic in the sense that they aim to attain an outcome that is not inherent to the activity itself: however, in the case of the former, the student personally endorses the value of the activity, while in the latter, she is merely complying to an external demand. The former is a relatively autonomous state of extrinsic motivation, while the latter is relatively heteronomous. As Ryan and Deci (2000) point out, the former would be “the type that is sought by astute socializing agents” (p. 71). Indeed, it has been shown that autonomous motivation is generally associated with a wide range of more desirable outcomes than heteronomous motivation, including more engagement, better performance, greater persistence, lower dropout rates, and enhanced psychological well-being. These findings have been replicated in a diverse range of domains, including education, health care, religion, physical exercise, political activity, and intimate relationships (for reviews, see Deci & Ryan, 2008; Ryan & Deci, 2000; Ryan & Deci, 2002). Although there have been no studies that follow up on behavior maintenance in terms of years, there have been several longitudinal studies that span months, and autonomous motivation has

been shown to predict sustained behavior (e.g., Kosmala-Anderson, Wallace, & Turner, 2010; Williams et al. 2006; Wilson et al. 2012).

Autonomy in SDT is defined as a state in which one *perceives* that their own action is self-determined, as opposed to prodded by external forces, and in which one self-endorses that action. Note that the subjective experience of the agent is the key: even if someone seems to be prodded by external forces from the viewpoint of an observer, as long as the agent believes that she is the origin of her action, the action is considered autonomous (see Ryan & Deci, 2006 for a detailed discussion on the SDT concept of autonomy, especially in regard to its distinction from the concept of independence). Intrinsic motivation is a highly autonomous form of motivation, and represents the prototypical instance of self-determination (Ryan & Deci, 2000).

Autonomous extrinsic motivation is facilitated through the taking in, or *internalization*, of values related to the task. When a value is internalized, it is assimilated to the self and personally embraced, as opposed to being impersonal and foreign to the self. The more internalized a value is, the greater the degree of autonomy. Internalization may progress incrementally over time, but not necessarily: the values of a new behavior can be internalized relatively deeply from the onset depending on prior experiences and current situational factors (Ryan, 1995).

SDT posits that intrinsic motivation and internalization are facilitated through the support of three basic psychological needs, namely, the needs for autonomy, competence, and relatedness (for a detailed commentary on the basic needs in SDT, see Deci & Ryan, 2000).

The *need for autonomy* is the existential desire to act in congruence with one's sense of self. When individuals act in congruence with the self, they perceive that they are the originators of their own behaviors, and self-endorse the actions. The conceptualization of this need is based on de Charms' (1968) theory of personal causation. Behavior- and performance-contingent rewards cause people to feel as if they are being coerced to act in a certain way, thus thwarting

the perception that they are the originator of the action, which in turn causes the decline in autonomous motivation.

The *need for competence* is the desire to interact effectively with one's environment, based on White's (1958) concept of competence. Note that the meaning of *competence* here is not equivalent to the commonly used term, but has a much broader connotation. If people feel that their action has a meaningful effect on their environment, they will be motivated to continue the action. Contrarily, if one cannot perceive the desirable effects of their action, they will not be motivated to continue. Take for example a child who is struggling with schoolwork: if he sits in class but does not feel that he understands anything, he probably will not see the value in continuing to sit in class. In order to be motivated to continue to sit in class, he needs sufficient support to understand, and thus feel the effects (i.e., learning new and meaningful things sitting in class and studying).

The *need for relatedness* is associated with Bowlby's (1969) concept of attachment, and represents the need for secure relationships. The importance of relatedness can be seen in an infant's exploratory behavior, which is typically observed when the baby feels secure with the people around.

These three needs are considered to be—and to some extent have empirical support indicating that they are—universal regardless of culture (see Ryan & Deci, 2011; Chirkov, 2014, for reviews). This paper mainly addresses the conditions that facilitate behaviors in adult participants of aid projects that would increase their likelihood to work themselves out of poverty, but the theoretical framework could also be applicable to children, for example, who are struggling in school. It is important to note that these needs are of a different nature than physiological drives such as hunger, which would motivate behavior to satisfy the need when there is a deficiency of nutrition. Instead, when these needs are thwarted, internalization would be hindered and thus subsequent behavior would decrease, and additionally psychological well-being would deteriorate. Also, there is no consummatory response to these needs as in

physiological needs: although the term “satisfy” is often used in SDT literature to denote that something works positively for the need, this is misleading, and so in this paper the term “support” will be used instead.

Among the three needs, autonomy is currently considered to be the most important in SDT, and most research focuses on the effects of environmental contexts that facilitate autonomous motivation focus on the issue of autonomy versus control. Approaches that support the need for autonomy, or *autonomy supportive* approaches, are considered to be the modus operandi to facilitate autonomous motivation and consequently sustained behavior. Autonomy support is typically provided by someone who is in a supervising role regarding a certain task, such as a teacher or parent. While there is no clear definition of autonomy support, the literature generally agrees that it entails encouraging self-initiation, providing choices, minimizing controlling language, providing meaningful rationale, and accepting emotions, thoughts, and reactions regarding the task including resentment and resistance (e.g., Deci, Eghrari, Patrick, & Leone, 1994; Grolnick, Deci, & Ryan, 1997). This may intuitively seem to be a rather “weak” approach to inducing a desired behavior compared to more forceful means, but it has been shown to be effective especially in producing autonomously motivated, and thus sustainable, behavior, as well as other positive outcomes (e.g., Grolnick & Ryan, 1989; Weinstein & Ryan, 2012).

### **Limitations of SDT’s autonomy supportive approach**

While the positive effects of autonomy support have been widely reported (see Deci & Ryan, 2008; Núñez & León, 2015; Su & Reeve, 2011; Vasquez, Patall, Fong, Corrigan, & Pine, 2016 for reviews and meta-analyses), the vast majority of these studies have been conducted with “normative” subjects in industrialized nations. It could also be said that the target tasks involved in these studies, such as schoolwork and exercise, would not be considered to be particularly novel or extraordinarily difficult or uninteresting to such subjects. In the context of these studies,



the proposition that autonomy support is an effective approach for inducing desirable behavior holds well. Note that there is a parallel between this assumption and that of Sen's Capability Approach (Sen, 1999), that just providing opportunity is sufficient for the beneficiaries to utilize their own agency.

However, there are two studies (Deci et al. 1994; Joussemet, Koestner, Lekes, & Houliort, 2004) that examine uninteresting and novel tasks and indicate that autonomy support is not effective in bringing about behavioral change in such contexts.

Deci et al. (1994) conducted an experiment with university students using Deci's (1971) free-choice experimental paradigm, using a boring task in place of an interesting one. The task was to sit in front of a computer and press the space key whenever a dot appeared on the screen. Also, instead of using reward versus no-reward conditions, a 2 x 2 x 2 three-way ANOVA design was employed, with each factor being a component of autonomy support: 1) providing rationale (the activity improves concentration) versus no rationale, 2) acknowledgement of the subjects' possible disinterest versus no acknowledgement, and 3) using no controlling language versus using controlling language such as "should," "must," and "have to." While no main effects or interactions on engagement time were significant, the main effects for each condition approached significance in the predicted direction, i.e., that autonomy support would facilitate engagement. The study also investigated the effects of the three conditions on self-reports of perceived choice, perceived usefulness, and interest/enjoyment. The main effects were significant for all conditions, as well as some interactions, indicating that the scores in the autonomy supportive conditions were higher. Taken together, these results imply that autonomy support facilitates both behavior enactment and internalization. However, analyses on the engagement time were conducted *only* with subjects that performed the task during the free-choice time: out of 192 subjects, 133 did not engage in the task. That is, the autonomy supportive conditions failed to change the behavior of almost 70% of the subjects.

Joussemet et al. (2004) replicated these results, this time with elementary school students, using a task almost identical to Deci et al. (1994). Of particular interest is their second study, where the effects of autonomy support versus controlling instructions versus rewards and controlling instructions were compared. It was found that children in the autonomy support condition valued the task more than those in the control conditions, indicating that they had internalized the value of the task more. However, there was no significant difference in free-choice engagement. Additionally, only 30% of the subjects engaged in the task in the free-choice time. The task was a tedious one in which the children had to concentrate in front of a monitor screen for 15 minutes. Again, autonomy support was not effective in altering the behavior of the subjects.

While internalization is purported to facilitate behavior enactment in the long term, it is doubtful that these subjects actively sought to continue the experimental tasks, even if they perceived their value. Although the authors of these studies (Deci et al. 1994; Joussemet et al. 2004) do not discuss these results in depth, it would be reasonable to conclude that autonomy support does not effectively facilitate behavioral change in tasks where the need for competence lacks support.

An uninteresting task can be considered one in which the underlying value is hard to perceive and thus difficult to internalize. There are two reasons why a task could be uninteresting to a certain person: the task may be inherently boring and thus difficult to be valued by a large majority of people, or the particular person may be unable to see the value of the task due to personal or contextual factors. Whether the reason lies in the task or the person, it is difficult to facilitate autonomous motivation and sustained behavior change in either case, and as we saw in the two studies, it seems difficult to induce *any* behavioral change. This is especially relevant to people with challenges such as those who would be participants of capacity development projects. While the behaviors promoted by such aid projects may not be inherently uninteresting, being novel, they may seem strange or “wrong” within the beneficiaries’ cultural context,

making the underlying value even more difficult to perceive. Additionally, the effects of the behavioral change may not be immediately apparent in capacity development projects such as farming and education. In such cases, autonomy support alone would not be sufficient, and it would be important to provide support for competence so that the subjects would be able to acknowledge the effects of their actions in order for the value of the action to be internalized.

Theoretically, Ryan and Deci (2002) have asserted that a behavior will not be enacted unless one can perceive the effect of their action and thus feel competent. Sayanagi (2007) also found that autonomy support is not effective in facilitating autonomous motivation in subjects with low perceived competence. In his study on schoolchildren in grades 4-6, he examined the relationship between teacher autonomy support and academic motivational styles while controlling for perceived academic competence. Teacher autonomy support was associated with autonomous motivational styles for schoolchildren with high perceived competence, but not for children with low perceived competence. Also, teacher autonomy support was negatively associated with heteronomous motivational styles for schoolchildren with high perceived competence, but not for those with low perceived competence.

Thus, there is some evidence that for those with low perceived competence, as participants of development aid projects would be, autonomy support alone is not an effective approach. Next, we will look into behavior modification approaches, which are commonly used with such subjects.

### **An outline of behavior modification**

Behavior modification has its roots in the well-established classical school of behaviorism, which posits that all volitional behavior is the result of operant conditioning. The principles of operant conditioning, while very straightforward (vis-à-vis the rather counterintuitive SDT), offer a powerful explanation for how behaviors are formed. The theory posits that the antecedents and consequences of an individual's behavior will modify the behavior. For example,

if something desirable occurs following the behavior, the behavior is likely to be repeated under similar circumstances. On the other hand, if something undesirable occurs as a consequence of a behavior, it is likely that it will not be repeated (for a detailed outline of behavior modification, see for example Alberto and Troutman, 2012).

This principle can be applied to induce or inhibit certain behaviors. Rewards, or *reinforcement*, can be used to increase the frequency of a certain behavior, and punishment can be used to decrease frequency.<sup>5</sup> These principles should be easy to understand even for the layperson who has never heard of the term “operant conditioning,” as they are a close analogue to how our labor and judicial systems work. However, it should be noted that in behaviorist theory and in practice, it is important to introduce reinforcement and/or punishment constantly and in a timely manner, so as to ensure that the subject understands the contingency between the action and the consequence. In everyday life, reinforcements and punishments are not always introduced quickly enough, or they are not introduced consistently. In such cases, the intended behavioral change does not occur effectively.

One example of a behavior modification technique is the token economy. Subjects participating in token economy programs are given “tokens” as rewards for predetermined desirable behaviors, and have them confiscated as punishment for undesirable behaviors. These tokens, when accumulated, can be exchanged for other predetermined rewards, which can include anything from material gifts to services and privileges. Token economies were first introduced in the early 1960s in psychiatric settings, but rapidly spread to a wide range of applications (for a review, see Kazdin, 1982).

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<sup>5</sup> While there are two theoretical views on punishment within behaviorism, one being that it is not as effective as rewards and the other that it is (Holth, 2005), the evidence seems to favor the former view that it is not effective (Kubaneck, Snyder, & Abrams, 2015). Generally in practice, extinction (the withdrawal of reinforcement in response to problematic behavior) is encouraged over punishment. As aforementioned, punishment is viewed as detrimental in SDT.

### **Limitations of behavior modification approaches**

While behavior modification techniques were widely used during the late 1960s and early 1970s, the scope has somewhat narrowed. A PsycINFO® keyword search of the phrase “token economy” reveals that many studies were conducted during the 1970s, but the number has since decreased significantly: in the 1970s, there were 478 articles; in the 1980s, 187; in the 1990s, 70; and in the 2000s, 67 (in comparison, the number of SDT studies in the 2000s was 418). Although there have been studies on “normative” subjects, the focus of the approach has primarily been on people with difficulties. We could paraphrase in SDT terminology that these subjects are low in perceived competence. Of the recent studies on token economies in schools, a majority target children with behavioral difficulties (e.g., Maggin, Chafouleas, Goddard, & Johnson, 2011). Settings for other recent studies include closed mental wards (e.g., LePage et al. 2003), prisons with inmates who have serious mental health issues (e.g., Seegert, 2003), and patients receiving treatment for substance addiction (e.g., Garcia-Rodriguez et al. 2009). Although the reason that behavior modification approaches are not often used with “normative” subjects has not been well documented, we can speculate with some confidence that they did not catch on in settings in which they were not effective, and continued in settings in which they were.

One major criticism of behavior modification techniques including token economies is that the induced behavior change seems to be temporary and target behaviors disappear after the systematic administration of rewards is terminated (e.g., Kohn, 1993; Schwab, 2009). Even reviews by proponents of token economies concede that there is yet no evidence that the behavioral change generalizes or is sustained (Kazdin, 1982; Kazdin & Bootzin, 1972). That token economies are not often used with “normative” subjects fits SDT’s findings—compiled from studies with such subjects—that extrinsic rewards would decrease the subsequent amount of desired behavior in the lack of such rewards.

It is important to note that SDT posits that it is *not* the tangible rewards *per se* that would decrease subsequent behavior. In fact, SDT asserts that rewards will not decrease behavior if the

rewards are *informational* in regard to conveying competence. That is, if rewards are administered in a manner that supports the need for competence, internalization will be facilitated and subsequent behavior will not be negatively affected. Contrarily, if rewards are administered in a *controlling* manner—that is, if they explicitly purport to control behavior and thus thwart the need for autonomy—while they may temporarily increase the desired behavior, internalization would not occur, and thus the behavior will decrease after the rewards are withdrawn (see Ryan, 1982 on the informational and controlling aspects of rewards).

### **Implications from successful token economy programs**

As discussed in the previous section, behavior modification techniques including token economies are still widely used with subjects with behavioral difficulties. We can speculate that this is because they are effective in inducing behavior changes that would be difficult using other approaches. Nonetheless, whether such behavioral change in token economies is sustainable is not clear: even some behavior modification workers assert that without further intervention, the positive effects cannot be maintained or generalized after reinforcement is terminated (e.g., Schwab, 2009). For the purpose of this thesis, which is to develop a theoretical framework for behavioral change that is sustained for years after development aid projects end, it would be helpful to look at behavior modification studies that have tracked subjects for a number of years after program completion. However, while many studies do track the post-program maintenance of behavioral change, the vast majority of them only report on outcomes in terms of weeks, rather than years, afterwards. (That said, many studies indicate that behavioral changes are indeed maintained for those periods.) There are only 3 token economy papers searchable on PsycINFO® that report on post-program behavioral change for two or more years (Banzett, Liberman, Moore, & Marshall, 1984; Heaton & Safer, 1982; Safer, Heaton, & Parker, 1981). Of these 3, the two by Safer and colleagues are both follow-ups on the same program. Nevertheless,

it could be said that both programs were successful to some degree in inducing sustained behavioral changes.

The reports by Safer and colleagues (Heaton & Safer, 1982; Safer et al. 1981) were regarding a token economy project for delinquent juveniles who had been suspended from school multiple times by the time they were in 7th grade. The study included a control group of comparable students from the same district who were not enrolled in the program. Key characteristics of the program were a) it was conducted for 1 year when the students were in 7th grade; b) participants were given a token for every 15 minutes they behaved appropriately in the classroom, and tokens could be exchanged for prizes or for privileges such as the right to leave school early; c) the program was administered in a small class of 10-15 students; d) the teachers in charge of the class were selected based on aptitude and were highly motivated; e) counseling was provided to not just the students but also to their parents; and f) the parents cooperated in administering tokens at home. Post-program follow-ups showed that program participants had significantly higher high school entrance rates and high school attendance rates, and also that they had significantly fewer incidents of disruptive behavior in high school compared with the control group (Safer et al. 1981). Also, school dropout rates after 8th grade were significantly lower for participants for 3 years after the program, until 10th grade: however, there was no significant difference after 11th grade, and there was no difference in high school graduation rates (Heaton & Safer, 1982).

Banzett et al. (1984) followed up on former patients of a psychiatric ward 2-6 years after they left a token economy program, using a questionnaire mailed to the former patients' families. Key characteristics of this program were that a) subjects were 58 former patients with diagnoses ranging from schizophrenia and autism to personality disorders and emotional disorders; b) it was an intensive program that reinforced grooming, showering, housekeeping tasks, meal behaviors, leisure activities, and social skill training, and participants could exchange tokens for food, cigarettes, and privileges such as listening to music records and walking outdoors in the

hospital premises; c) the setting was a small 12-bed psychiatric ward with both inpatients and daycare patients participating; and d) the staff included 15 nurses, a psychiatrist, social worker, psychologist, and rehabilitation therapist. Of the 58 families that responded to the questionnaire, 70% reported that the former patients were able to groom and shower themselves either voluntarily or with verbal cues, 64% were able to do housekeeping tasks and maintain tidy living spaces, and 45% actively participated in work or leisure for more than 60% of the time that they were awake. While this study did not have a control group, 80% of the respondents answered that the former patients had improved or at least maintained their levels of adaptive behavior since leaving the program, implying that the attained behavioral change had been sustained for most subjects.

These studies indicate that behavioral change is sustained for the long term at least in some programs. Although they represent a very limited sample, we can notice that the two successful programs had several aspects in common. Here, we will focus particularly on two aspects that seem to be key to sustainable behavior change. First, both programs provided intensive care, with relatively high staff-to-participant ratios. In the Safer and colleagues program, in addition to highly motivated and competent teachers, counselors and the participants' parents were also involved. In terms of SDT, it could be reasonably assumed that there was ample support for the need for relatedness. Second, as is common in behavior modification programs, the participants in both studies had difficulties in perceiving the effect of the target behaviors, which were basic skills that are necessary to lead an adaptive life in society. We can speculate that the tokens functioned as a tangible way to inform the participants of the effect of performing those skills. Additionally, as there were many staff members and, in the case of Safer and colleagues' project, parents, there would have been many opportunities for the participants to receive informative feedback on their performance in addition to the tokens, thus supporting their need for competence. Furthermore, while they initially may not have been able to appreciate the benefits of utilizing these skills, they could have gradually realized that adhering



to them allowed for a more adaptive everyday life, making life much easier. This ultimate realization would lead the participants to continue the target behaviors even after the token economy program ended. For example, students who struggle academically in elementary school often feel helpless in secondary school, and thus find little reason to attend or sit still in a class that they cannot comprehend; they likely find more joy in drawing classmates' and teachers' attention by causing trouble. The tokens for sitting still in class may initially be extrinsic motivators, but with a competent teacher providing adequate support and instruction for the students to be able to learn, they would gradually be able to understand and realize the significance of the course material. Additionally, they would find that staying attentive in class would make life easier, as their relationships with their peers and teachers would improve. Thus these students would internalize the value of staying focused in class, and it is likely that they would continue to do so in the future.

To summarize, behavior modification techniques such as token economies are commonly used with people with behavioral difficulties, probably because they effectively induce behavioral changes that would be hard to attain with other approaches. However, there are theoretical doubts, not just from SDT but also from behavior modification workers, on the sustainability of the behavioral change. Although there are few reports on behavioral changes that were maintained for years after the end of a program, the few programs that do provide such reports suggest that not just the reinforcement, but also supports for relatedness and competence are important. This is admittedly highly speculative and begs for evidence. However, as will be seen later with conditional cash transfers, this provides a plausible explanation as to why reward-induced behavioral changes are maintained better in some cases than others.

### **A modified SDT framework**

As we have seen, autonomy support does not seem to be effective in causing behavioral change in subjects who have low perceived competence, whereas behavior modification approaches are. However, rewards alone are not sufficient in sustaining the behavioral change.

To facilitate sustainable behavioral change in such subjects, it seems key that, first and foremost, the subjects are able to perceive meaningful effects of their actions in order for the behavior to be enacted at all. This requires support for the need of competence, that is, *competence support*, to coin a concept as a counterpart to autonomy support. Competence support would primarily involve providing informative feedback to aid the subject to be able to perceive the effect of his or her action, as was reported in the successful token economy programs discussed in the previous section. In some cases, it may be necessary to provide structure for the activity. This would consist of, for example, breaking down the target activity into small steps and then explaining at the beginning of each step what consequences or effects the subject can expect following the execution of the step. Through the providing of structure and informational feedback, subjects would be able to feel that they are dealing effectively with their task and thus be motivated to engage in the activity.

Only then would autonomy support be effective for these subjects in order to facilitate internalization of the value of the act so that the enacted behavior would be sustained. That is to say, even if rewards are given for engaging in an activity, it must be done in an autonomy supportive and non-controlling/informative manner.

Additionally, it seems that competence support and autonomy support need to be provided in a context that supports the need for relatedness. *Relatedness support* is somewhat difficult to put in terms of specific acts, as the nature of a desirable relationship differs between people and between cultures. However, it should entail that the subject feels secure with the person(s) supervising the target activity, and feels able to rely upon the supervisor(s) when help is needed. This could be paraphrased as a kind of trust in the supervisor(s). This is important, as

without this trust, informative feedback would not be taken at word value and thus not function as competence support. Furthermore, the underlying values of a task would be more readily accepted in such a trusting relationship. Environments such as those described in the aforementioned successful token economy programs, where supervisors were able to interact often with participants, are a necessary condition, but are not sufficient on their own; the quality of the interactions are probably important, too. Future research should focus on what kind of interactions support the need for relatedness.

Readers familiar with SDT may notice that some aspects of competence support and relatedness support described above overlap with what is currently considered autonomy support. For example, providing rationale is one method to provide autonomy support, but the current literature does not distinguish between types of rationale. Rationale could be an explanation of how certain knowledge is relevant to better understanding a topic, but it also could be on what results to expect from learning a certain technique: the latter case would better fit the description of competence support. Accepting of feelings towards the task, currently an aspect of autonomy support, includes elements of relatedness support. One direction that may be useful in future studies would be to make a clearer distinction between specific methods of support and the needs they are relevant to. This would be especially important to detect the interactions hypothesized in the section below.

In sum, the modification to the SDT framework is mostly regarding the approach to facilitate internalization in subjects with low perceived competence. Autonomy support, the current “best practice” in SDT, will not work unless competence support is first provided. These supports must be provided in a relatedness-supporting context. To paraphrase in terms of causes and effects (see Figure 1), relatedness support and competence support are moderators of the effects of autonomy support. Relatedness support would also moderate the effects of competence support. Admittedly, this argument is quite hypothetical. Sayanagi (2007) is the only study that reports an interaction between autonomy support and the support of other needs,

and rigorous future empirical testing of this hypothesis—that there would be an interaction between autonomy support and competence support, as well as autonomy support and relatedness support—is warranted. However, as will be seen in the next section, it holds fairly well at the anecdotal level.

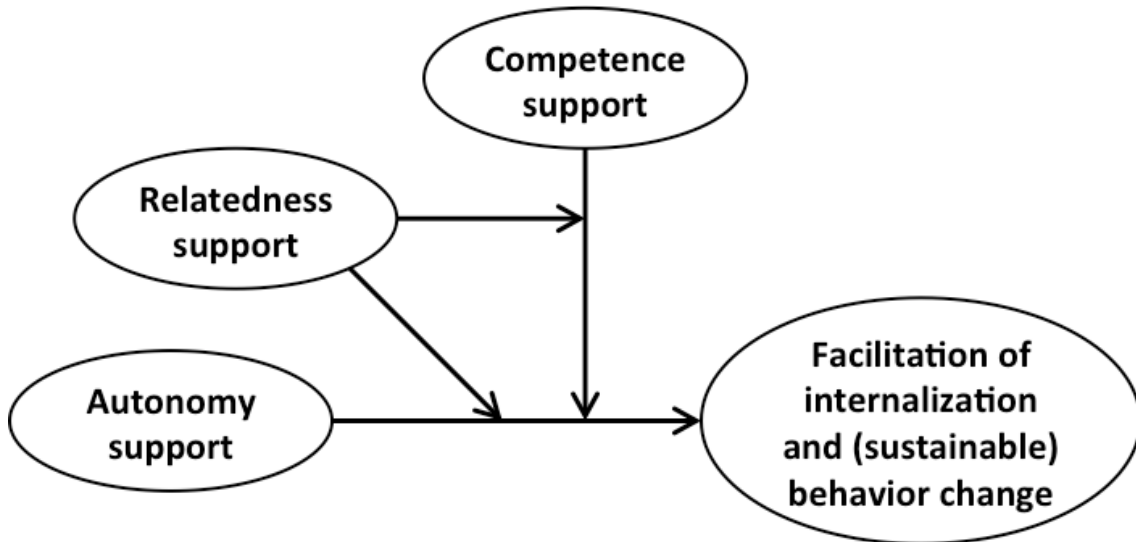


Figure 1 Relatedness support and competence support as moderating variables of autonomy support

Source: Created by author.

### 3. Examination of development aid approaches

In this section, we will look at selected approaches through the viewpoint of the modified SDT framework. As previously mentioned, the approaches chosen all explicitly aim to alter beneficiaries' behavior, are considered to be relatively successful, and are well-defined and administered in multiple projects.

#### Conditional Cash Transfers (CCTs)

CCTs are programs in which money is conditionally offered to poor families<sup>6</sup> raising children, the conditions usually being that they uptake certain public services such as sending their

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<sup>6</sup> The cash transfer is typically given to the mother.

children regularly to school and seeking specific preventive health care measures for family members at health centers. To paraphrase in the parlance of behavioral change, CCTs explicitly aim to alter the behavioral patterns of beneficiary families by making cash transfers contingent to the altered behavior, which is a very straightforward description of a typical behavior modification program. The alterations in behavior brought about by CCTs are supposed to promote behavioral habits that will help lift the beneficiaries out of poverty.

The first ever CCT program, Progresa, was launched in Mexico in 1997. The program was deemed a success, increasing secondary school enrollment in areas where the program was implemented from 67% to 75% for girls, and from 73% to 77% for boys, among other positive outcomes (Schultz, 2004). Subsequently, CCTs have become a tool of choice for reducing poverty around the world, spreading rapidly across Latin America and later to Africa and other regions.

One immediate worry from standpoint of SDT is that the contingent cash rewards might thwart the need for autonomy. While the cash transfers will probably increase the target behaviors in the short-term, there are doubts regarding the longer-term effects. School attendance obviously does not need to be sustained beyond a child's age of schooling, but whether the beneficiaries internalize the value of education is a concern in terms of long-term development. If the parents do not embrace the merits of schooling, their attitudes towards school may be passed on to their children, who in turn may again need external nudging akin to CCTs when the time comes for their own children to attend school.

Indeed, Villatoro (2007: as cited in Pick & Sirkin, 2010) reports that one criticism of the Mexican CCT program Oportunidades, which succeeded the pioneering Progresa program, is that it enforced traditional paternalistic practices and that the structure of the program encouraged a dependency among beneficiaries on material rewards. Pick and Sirkin (2010) report narratives from Oportunidades beneficiaries that suggest that they do not whole-heartedly embrace the conditions put upon them (p. 78). These anecdotes suggest that the values promoted

by CCTs, which intend to strengthen the beneficiaries' human capabilities but are presumably novel to them, indeed were not internalized. From non-CCT approaches that provide cash incentives, Sayanagi, Aikawa, Shuto, and Asaoka (2016) report cases where providing compensation causes the undermining effect (pp. 76-79, 93-94). This author has encountered multiple aid workers who report of would-be aid beneficiaries who refused to participate in aid projects unless they were paid in cash or in kind: these would-be beneficiaries had previously taken part in programs in which cash or material transfers were contingent to participation. Since reports on CCTs have not focused on the motivation and value internalization of the beneficiaries, we do not know yet how widespread of a problem the undermining effect and lack of internalization are. Hopefully, future studies on CCTs and other schemes that utilize cash incentives will focus on their subjective experiences in addition to the changes in their behavior and financial states.

Additionally, it is well known that children who grow up in impoverished families have fewer opportunities for education and also that they tend to be lower achievers than their more affluent peers, which is to a certain extent because their parents tend to have less education and their home environments have fewer educational stimuli. This would mean that even if these children were to go to school in exchange for cash transfers, many would be at a disadvantage for learning from the start. As anyone who has struggled in class would know, it is difficult to fully appreciate the importance of the educational content if one has difficulty understanding it. Consequently, it would be harder for such struggling children to internalize and embrace the underlying values of education. For these children to become able to embrace the values of school education, merely providing the opportunity (i.e., sending them to school) would not be enough: additional competence support from their relatedness-supporting teachers would also be necessary.

Surprisingly, at least from a psychologist's point of view, evaluations of CCTs do not always focus on rates of conditionality fulfillment. In one extreme example, cash transfers in

Chile Solidario, the CCT program conducted by the Chilean government, were in practice given to everyone (Carneiro, Galasso, & Ginja, 2009). Additionally, many CCT programs including Progresa and Oportunidades do not use actual fulfillment rate data but instead regional panel data as an indicator of changes in school enrollment and/or utilization of health care services. Panel data are not a good index of the targeted behavioral change, as they are an indirect measure that leave room for alternative explanations: for example, it may have been the simple influx of cash into the region, rather than the contingencies, that caused the increase in school enrollment rates in areas where Progresa was introduced, and the rise may not be accounted for by only the beneficiaries' children. To accurately assess whether the program actually prompted participants to send their children to school, a direct measure of the beneficiaries' behavior is necessary.<sup>7</sup> Nonetheless, even from the data available from these reports, we can see that the degree of success in altering beneficiaries' behavior varies from region to region (see Cecchini & Madariaga, 2011, pp. 111-146 for a review).

Of the possible reasons that CCTs are ineffective in some cases, behaviorist theory would point to the timing of the cash transfer. If there is a substantial time lag between fulfillment and the cash transfer, for example due to a prolonged process to verify the fulfillment, behaviorist theory would predict that the contingency would be lost on the subject and consequently engagement in the target behavior would decrease. No studies have controlled for the timing of the cash transfer, so it is one factor that future studies should look into. The modified SDT framework would also predict that cash transfers would lose their informative value, if they were at all salient, if a substantial time lag existed.

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<sup>7</sup> From the viewpoint of psychological research method, using regional panel data to assess the effectiveness of CCTs and calling them randomized controlled trials (RCTs) is inappropriate. While the trial and control groups may indeed be assigned randomly, the point of RCTs is to systematically rule out alternative explanations through controlling for crucial parameters such as conditionality fulfillment: the so-called RCTs in CCTs, which in many cases do not control for such crucial parameters, leave much open for alternative interpretation.

Another factor that behaviorist theory would identify is the lack of contingency between the conditions and cash transfer. As Cecchini and Madariaga (2011) point out, CCTs vary in rigidity of conditionality (pp. 87-89), and indeed, some studies suggest that the strength of contingency was associated with indicators of fulfillment (de Brauw & Hoddonitt, 2007; de Janvry & Sadoulet, 2006).

However, while such studies seemingly suggest that contingency of the conditions is the key, other findings suggest otherwise: it has been shown in projects from Malawi and Morocco that unconditional cash transfers (UCCTs) can have results similar to CCTs (Baird, McIntosh, & Ozler, 2009; Benhassine, Devoto, Duflo, Dupas, & Poulouen, 2010 as cited in Banerjee & Duflo, 2011). We may speculate that the rise in school attendance rates in UCCTs shows that the severely impoverished realize the value of education and health care in the first place (i.e., the poor have predisposed autonomous motivation to send their children to school and receive health care), and that the unconditionally transferred cash allowed them to send their children to school rather than having them work to support the family. If the poor indeed were autonomously motivated towards these objectives, then making rewards contingent to them could potentially thwart the need for autonomy.

The aforementioned Chile Solidario did not make the cash transfers contingent on condition fulfillment, but nevertheless saw an increased uptake of subsidies and employee programs. One of the key characteristics of Chile Solidario was its provision of intense psychosocial support, called the Puente Program, which was implemented through local social workers who visited the beneficiaries at their homes (Carneiro et al. 2009). During these visits, the social workers worked with families to identify their main problems, work out the steps needed to resolve them, and introduce available social services. This can be considered a systematic provision of support for competence and relatedness. It is interesting that beneficiary families served by social workers with relatively lighter caseloads had higher rates of subsidy uptake (Yanagihara, 2016). That is, the more support a social worker was able to provide per



family, the more behavioral change was observed. Taken together with the fact that the cash transfers were essentially not contingent to behavioral change, it is implied that need support was more crucial than the cash transfers in inducing behavioral change. That said, it is unknown whether the beneficiaries of Chile Solidario internalized the values regarding the target services, and this should be an issue that future studies address. Additionally, the degree to which the social workers were autonomy supportive would be predicted to be a factor that affected the degree of behavioral change.

In any case, the evidence strongly suggests that the cash transfer itself is only one component in predicting the success of CCT programs, and perhaps there are other more important factors. Depending on the manner in which it is administered, the cash transfer may even be detrimental. From the standpoint of the modified SDT framework, one reasonable speculation is that successful CCT programs such as Chile Solidario provided sufficient competence support and relatedness support and were not controlling in administering the cash transfers. Future CCT studies should examine their beneficiaries' subjective attitudinal changes related to the contingent behaviors and degree of perceived need support as well as report more detailed fulfillment rates. In addition, it should be examined whether behaviors such as seeking preventive health care are sustained after the beneficiary has graduated from the CCT program.

### **The Life Improvement Approach (LIA)**

The LIA originated in post-war Japan in the early 1950s. Its inception was led by the U.S. occupational government with the objective to improve the livelihoods of impoverished rural farmers in Japan. Under the slogan *kangaeru nomin*, or “thoughtful farmers,” the program aimed to empower farmers, especially women, to be able to identify their own problems and work towards their solutions. LIA has been successful in Japan, and in some regions, there are still farmers actively participating in its activities. The approach has also been adopted in several developing countries, most notably in Central America and the Caribbean. Many of the recent

LIA programs are overseen by Japan International Cooperation Agency (JICA). (Unfortunately, there are no academic reviews in English on LIA. For a brief overview, see Japan International Cooperation Agency, 2013. For an extensive review in Japanese, see Tanaka, 2011.)

A LIA program typically involves a field officer who organizes and trains groups of farmers on how to improve various aspects of their lives, whether it be housing, farming, or family management. Once a problem is identified, the field officer works with the farmers to find a solution. No cash or materials are distributed. If the problem is regarding farming technique, the officer, usually a specialist in agriculture, will provide training in person, or will connect the farmers to someone else who can. If it is regarding housing, the officer will work to connect the farmers to financing and other resources: one successful initiative of the early Japanese LIA was the improvement of farmhouse kitchens, replacing floor-level open fire hearths with waist-high closed fire stoves, which ultimately were subsidized by the Japanese government. Other initiatives, all based on problems identified by farmers, include the building of facilities to store and process excess crops, training on gender awareness, training on healthy cooking and eating, lectures on family planning, and simplifying ceremonies such as weddings and funerals that financially burdened the impoverished farmers. The essence of the LIA is that the participants, rather than the field officers take initiative in deciding what they need. The field officers' role is simply to connect the farmers to appropriate resources.

As can be seen from this brief illustration, autonomy support and relatedness support are incorporated into the job description of a LIA field officer. Unlike CCTs, the target behavior differs from farmer group to farmer group, so a direct comparison across groups would be difficult. Furthermore, the long-term documentation on whether the intended behavioral changes were sustained is not thorough, making evaluation somewhat difficult. However, based on the fact that many LIA groups in Japan remained active for years, and that some still are, we can reasonably assume that the changes in behavior were perceived as meaningful and also that they

valued the activity, thus the farmers chose to continue the activity and to continue being active in LIA.

There has been some empirical research on successful Japanese LIA participants (Sayanagi & Aikawa, 2016) indicating that the motivation of the participants and field officers towards participating in the program is in most part autonomous. More research is warranted, particularly regarding the relationship between autonomous motivation to continue LIA activities and the sustaining of behavioral changes. Also, the specific ways in which field officers provide autonomy and relatedness support would be of interest.

One aspect that is not salient in LIA field officers is competence support. It may be that the level of perceived competence of Japanese farmers was relatively high, and they did not require the support to continue. However, it also may be that the field officers subtly provided structure for the farmers. Future studies could look retrospectively on the details of Japanese field officers' work, or they could look at newer projects in Central America and the Caribbean to observe the initial levels of perceived competence in participants as well as the degree of need support provided and how they would predict a project's degree of success.

### **The Smallholder Horticulture Empowerment Project (SHEP) approach**

The SHEP approach was developed through a technical cooperation project in Kenya supported by JICA. Phase 1 of SHEP was launched in 2006 as a three-year project, and its successor SHEP UP was launched in 2011 (for an overview, see Aikawa, 2013). The project's third phase, SHEP PLUS, started in 2016. The approach trains farmers in a wide range of activities including not just farming techniques but also market research and gender sensitivity training. The initial SHEP project succeeded in increasing participants' average nominal income twofold. SHEP UP was expanded further in Kenya and attained comparable results. Subsequently, the SHEP approach has been introduced to 20 other African nations as of 2015 (Sayanagi & Aikawa, 2016).

SHEP is an agriculturally based approach which main goal is to help farmer groups profitably market their crops in a sustainable manner. It does not involve any transfer of cash or matter to the farmers. The approach is unique in that it does not start by training farmers to grow high-return crops, but with market research training. This is based on the observation that poor smallholder farmers usually do not grow to market, and consequently are not able to sell their crops for much, if any, profit, making it difficult for them to escape poverty. Participant farmers are first trained to research their local markets on what crops will sell at what price at what time of the year. Once the farmers complete their survey, they decide which crops to grow at what timing to attain profit, and find buyers before they actually plant their crops. The JICA-supported project headquarters provides a forum for the farmers and potential buyers. Once the farmers decide what crops to grow, the project headquarters provides training on the particular crop, as well as general training on farmland cultivation, using environmentally friendly pesticides and fertilizers, and irrigation. There is also an emphasis on gender sensitivity training.

The SHEP approach was designed to facilitate intrinsic motivation in the farmers (Aikawa, 2013). It is highly structured, with the crop-growing and marketing processes broken down into small steps. At each step, field officers provide intensive training to the groups on how to execute the step and what outcomes to expect, as well as detailed rationale to do so. Thus, there is ample support for competence and autonomy. Additionally, the field officers visit the groups every week, and the farmers are trained to work together. Thus we can assume that the activities are conducted in the context of relatedness support, both from the field officers and within the farmer groups. From the viewpoint of the modified SDT framework of this paper, the SHEP approach provides a highly need-supportive environment.

Sayanagi and Aikawa (2016) have found that the values underlying SHEP activities have indeed been internalized and that participants as well as field officers are autonomously motivated. Additionally, all interviewed participants and field officers stated that they intend to

continue SHEP-related activities even after the program ends, and as an unexpected outcome, that participants are voluntarily teaching non-group neighbors the techniques that they learned in SHEP group activities (Sayanagi, Aikawa, & Asaoka, 2016). Field reports indicate that the participants indeed are continuing their SHEP-trained activities after program termination. It has been observed that the degree of internalization between groups differs (Sayanagi, Aikawa, Shuto, & Asaoka, 2016), and future studies should examine whether this is predicted by the degree of perceived need support, and whether internalization predicts long-term engagement.

### **The Framework for Enabling Empowerment (FrEE)**

The roots of the FrEE approach are Mexican psychologist Susan Pick's work in the early 1970s facilitating family planning practices in slums on the outskirts of Mexico City (Pick & Sirkin, 2010, p. ix). Pick later founded the non-governmental organization Mexican Institute of Family and Population Research (IMIFAP), where FrEE was ultimately developed. IMIFAP's first program in the early 1980s was a sex education program for impoverished youth in Mexico, which was based on their research that identified protective sexual behaviors among those adolescents. This program was successful, and was used as a basis for Mexico's official ninth-grade curricula that was introduced in 1994 (p. 257), and subsequently has been adapted for other grade levels, too. The approach has been expanded and adapted for programs on the prevention domestic violence, health education, business development, parental development, and community development, among other objectives that are relevant for poor adolescents and adults to be able to escape from poverty.

FrEE is theoretically based upon the Theory of Planned Behavior (TPB: Ajzen, 1991, 2002), a popular theory of motivation that is often referred to in help-seeking studies. TPB posits that an individual's *intention* to undertake a particular behavior is the key determinant of a behavioral outcome, and that intentions are an outcome of *subjective norms* and *attitudes* towards the behavior. Thus, interventions to modify behavior focus on fostering intention

through changing perceptions of what is expected of the person (i.e., subjective norms) and facilitating positive attitudes towards the action. The emphasis on the subjective experience of the agent is akin to that of aforementioned poverty-reduction studies and also the SDT framework of this paper.

Because the existing “research behind [TPB] focused on a literate and educated population and on behavioral outcomes that were within the control of the participants,” (Pick & Sirkin, 2010, p. 120), Pick and colleagues had to modify the theory in its application in the shantytowns of Mexico. As Pick (2007) points out, intentions can exist only if basic control exists, so FrEE interventions first focus on giving participants a sense of control over their own actions. Note that this theoretical adaptation also has parallels with the modification to SDT in this paper, that existing studies were conducted in mostly industrialized nations and that before individuals can exercise their sense of autonomy, they must be able to perceive competence regarding the action. FrEE is also influenced by Amartya Sen’s conceptualization of agency (Sen, 1999), and draws from psychological concepts related to agency such as self-efficacy (Bandura, 1997, 2001), locus of control (Rotter, 1966), and autonomy (Kagitcibasi, 2005).

Unlike LIA and SHEP, which are conducted in agricultural settings, FrEE was originally developed in classroom settings, and programs are usually conducted in the context of education. FrEE workshops aim to impart information (e.g., basic information on biology, reproduction, and contraception in sex education), but rather than relying on rote memorization methods, workshops employ many student participatory and analytical thinking exercises with the aim of having participants think of how they can actualize the information in their daily lives.

There is much documentation on the success of FrEE programs (see Pick & Sirkin, 2010 for an exhaustive list of references). As previously mentioned, the original sex education program was adapted as a part of Mexico’s national curriculum. In addition to the increased likelihood of contraceptive use in participants, there were also non-targeted changes. The adolescents who participated later worked on other IMIFAP programs on violence prevention,

drug abuse prevention, and employment, and young women showed increased participation in the community and local government, increased employment, and demanded better public services (Pick & Sirkin, 2010, p. 257). Many other FrEE programs also report non-targeted behavioral change in which participants became more assertive in regard to taking control of aspects of their lives that they had been previously passive about. Additionally, there are some follow-up studies that indicate that targeted behavioral changes were maintained for at least over a year (Venguer, Pick, & Fishbein, 2007)

Not much information is available on the specifics of how teachers and facilitators interact with their students and participants, so it is not possible to conduct a definitive examination on how basic psychological needs are supported in FrEE, but the theoretical emphasis on voluntary intention and agency imply that workshops are held in an autonomy supporting, rather than controlling, manner. In order for students be able to feel a sense of control, there would have to be competence support. Also, in general terms, relatedness support would be vital for student participatory and action learning techniques to succeed. That adolescent participants worked in subsequent workshops suggests that there indeed was a sense of trust fostered through relatedness support.

While the literature indicates that FrEE is an efficient approach, it would be expected that the degree of success between programs would vary. The theoretical framework presented in this paper would predict that the variance in need support would explain the variance in the degree of program success. Also, studies on the specific ways in which FrEE teachers and facilitators support psychological needs would provide information not just on how to improve FrEE workshops, but also how the project leaders of other approaches can support participants.

Although FrEE is based upon a psychological theory that differs from the SDT framework in this paper, neither approach is exclusive of the other. As we have seen, they are similar and can be complementary. FrEE, which is based on TPB, focuses on the subjective perception of the agent, while SDT focuses on different aspects of subjective perception but also

takes into account contextual and environmental conditions that are precursors to such perceptions. Additionally, since psychology is a discipline that inherently deals with intangible concepts, one theoretical viewpoint provides but a one-sided view of the psychology of the subject. The application of other psychological theories to the field of development aid should be welcomed.

#### **4. Conclusion and future directions**

People living in chronically impoverished conditions tend to form behavioral patterns that make it difficult for them to escape those very conditions. These behavioral patterns are prone not to change. Many development aid projects aim to change such behavioral patterns, with mixed results. This is apparently because of the lack of understanding on the subjective experiences and psychology of the poor. Surprisingly, very few psychological studies have focused on the beneficiaries of development aid, perhaps because there is no adequate theoretical framework.

This paper proposes a modified SDT framework that accommodates for disadvantaged subjects. SDT purports that there are three fundamental psychological needs, and traditional SDT studies have asserted that supporting one need, autonomy, is the best practice to facilitate internalization. However, other studies indicate that for subjects with low perceived competence, autonomy support is not effective in bringing about behavioral change. This paper argues that for such subjects, competence support would need to come before autonomy support, and that it would have to be done in a relatedness supporting context in order for the behavior to be enacted and sustained.

Selected development aid schemes that aim to alter the behavior of beneficiaries were examined with this modified framework. Indeed, it seems that schemes that succeed in facilitating sustained behavioral change, whether they are CCTs, the LIA, the SHEP approach, or the FrEE, provide support for all three needs. As we have seen especially in the discussion on



CCTs, the degree of need support indeed does seem to make a difference in sustainable behavioral change. The framework could also be applied to other aid paradigms, not just to analyze the degree of need support in a given approach, but also to identify deficits in need support and ways to improve.

It should be noted that it is not *what is done* per se, but *how the beneficiaries perceive* what is done that is important in supporting psychological needs. That is, the same method could be perceived differently depending on the context or culture, and even among people participating in the same project. Thus, the method for supporting a certain need may differ between contexts or cultures, but the three needs are universal, as are the perceptions of having the need supported. This underscores the importance of understanding the subjective experiences of project participants.

All of the analyses in this paper have been post-hoc and anecdotal, and much empirical verification is warranted. One of the major assumptions of the framework—that autonomous motivation is moderated by perceived competence and perceived relatedness—requires more validation. Development aid would be an ideal field to test this assumption, as there is large variance in perceived competence and the effects of autonomy supportive approaches could be examined while controlling for competence and relatedness support. The assumption could also be tested in an experimental setting, which would not necessarily have to be in a development aid setting, with the free-choice paradigm, using a task in which subjects vary in perceived competence. The assumption would be supported if autonomy support worked for subjects with high perceived competence but not those with low perceived competence.

Psychological measures that would allow the assessment of autonomous motivation to participate in capacity development projects are necessary to conduct empirical research. Sayanagi and Aikawa (2016) measured the motivation of aid program participation through semi-structured interviews, and based on these findings, a questionnaire for the measurement of motivation is being developed. Additional measures to assess the degree of need support are also

under development. These measures could be used to test the assumptions as well as to verify the presented SDT framework.

In conclusion, some issues that were not addressed in detail but that are relevant to the thesis of this paper will be discussed. First, it is apparent that field officers play a crucial role in providing need support in aid programs. Study of the manner in which effective field officers support the needs of participants would be of both academic and practical interest. Additionally, as the job of the field officers is labor intensive and it would therefore be especially beneficial for their motivation to be autonomous, identifying the conditions that would promote their autonomous motivation would be informative. Finally, the modified SDT framework presented in this paper suggests that labor intensive capacity development projects in which field officers and staff work together in the fields with the farmers is the optimal way to facilitate sustainable behavioral change necessary to break the poverty trap. It is difficult to imagine any other way to provide competence and relatedness support. However, such hands-on approaches are falling out of favor, and common basket approaches where multiple donor nations chip in financial but not human resources are becoming popular. One can only wonder how such indirect approaches can succeed in inducing behaviors that would sustainably lift aid beneficiaries out of poverty. This paper represents but one position on the psychology of aid beneficiaries, but hopefully it will lead to more diverse discussions on their psychology and how to effectively help them.

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## Abstract (in Japanese)

### 要約

開発援助プログラムにおいて裨益者の心理について理解することの重要性は、特に能力開発に関わる者の多くから指摘されてきているが、開発援助の分野をフィールドとした心理学の専門的な研究はほとんど行われていない。その理由としては、開発援助の分野において妥当性が検証された理論がないことが考えられる。本稿の目的は、絶対的貧困等の困難を抱える者の援助、アセスメント、そして研究に有用な理論枠組みを提示することである。この理論枠組みは心理学の自己決定理論に依拠するが、行動変容に関する理論も参照する。従来の自己決定理論では、想定されている基本的欲求のうち自律性欲求さえ支えれば行動変容を促進できるとされるが、開発援助の対象となる貧困層に対しては、コンピテンス欲求と関係性欲求を十分に支えることが自律性支援の機能する前提条件だというのが本稿で主張する理論改訂の要点である。この改訂された自己決定理論の解釈に基づき、条件付き現金給付 (CCTs)、生活改善 (LIA)、小規模園芸農民組織強化計画 (SHEP)、そして Framework for Enhancing Empowerment (FrEE) の各アプローチを検証し、将来的な研究と実践の方向性を提示する。



**Working Papers from the same research project**

**“An Interdisciplinary Study on Agency Enhancement Process and Factors”**

JICA-RI Working Paper No. 121

*The Motivation of Participants in Successful Development Aid Projects: A Self-Determination Theory Analysis of Reasons for Participating*

Nobuo R. Sayanagi and Jiro Aikawa

JICA-RI Working Paper No. 123

*User-Centered Approach to Service Quality and Outcome: Rationales, Accomplishments and Challenges*

Toru Yanagihara

JICA-RI Working Paper No. 129

*Empowerment through Enhancing Agency: Bridging Practice and Theory through Crystallizing Wisdom of a Third-Country Expert*

Mine Sato

JICA-RI Working Paper No. 146

*The Evolving Life Improvement Approach: From Home Taylorism to JICA Tsukuba, and Beyond*

Tomomi Kozaki and Yusuke Nakamura