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## Editorial

### The JARE and Open Access: What to Expect in 2019

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The Journal of Advocacy, Research and Education's (JARE) since 2014 has kept to its primary goal of promoting the Open Access movement without boundaries. As a multidisciplinary journal, our scope of authors and papers has kept growing over the years. With our highest number of authors from Ghana and Ukraine, the rest come from Germany, Zimbabwe, India, Indonesia, China (PRC), Nigeria, United Arab Emirates, Russia, Romania, United States of America, Serbia, Tanzania, Ukraine, Philippines and Japan (Sarfo, 2018).

As we approach the year 2019, the JARE is aiming at promoting the Open Access movement among developing countries. According to Nwagwu et al. (2009), people living in developing countries, especially in Sub-Saharan Africa are always limited when it comes scientific information. As such, the goal of having an unlimited access to share and access research results in such regions without a fee, should be the focus of all. The Editorial Team of the JARE have come to appreciate the beneficial role Open Access journals play in global development. Before the inception of e-library Open Access Movement, the quality and quantity of scientific information were quite restricted. This era even gave room to poor detection of plagiarism (Ocholla et al., 2016). As an advantage, Open Access articles often obtain favourable number of citations than non-Open Access articles because of their lack of access restrictions (Antelman, 2004; Harnad et al., 2004; Norris et al., 2008). Thus, promoting information access for development. Undeniably, once scientific information is able to reach people without limits, the global focus of achieving sustainable development goals through research will be met (Clark et al., 2003; Griggs et al., 2013). It is against these merits that KAD International, Ghana initiated the publication of the JARE (Sarfo, 2018), and will continue to be our agenda for 2019.

In the year 2019, the JARE is expected to provide opportunities for young researchers and post-graduate students to share their scientific results. We foresee a year where by our journal will be an outlet for many universities and conference organisers, especially in developing countries to share scientific information. Also, we hope to keep to the promise of granting full fee waiver to all our authors and offer green Open Access outlet to all readers without subscription fees in the year 2019.

In conclusion, we pat on the back all who have contributed to the growth of the JARE. These include our funding agencies (the Academic Publishing House Researcher, Slovakia and International Network Center for Fundamental and Applied Research, USA), JARE Team of editorial staff and board, researchers and readers all over the world.

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## Articles and Statements

### Developing Pedagogical Culture of Parents in Kharkiv

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#### Paper Review Summary:

Received: 2017, December 18

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#### **Novelty:**

This paper contributes to the existing knowledge on the effective development of pedagogical culture of parents from Kharkiv.

#### **Abstract**

This article explored the essence and components of parents' pedagogical culture development using a mixed-methods approach. One hundred and eighty-two parents whose children study at secondary schools of Kharkiv were sampled randomly for this study. At the initial stage of the pedagogical experiment, parents were interviewed and subsequently made to fill questionnaires. At this stage, participants had low scores for all indicators. Subsequently, participants were subdivided into experimental and control subgroups. In the experimental subgroup, a methodology for parents' pedagogical culture development was administered while traditional knowledge on parenting was discussed among the control subgroup. Post-test results following this phase indicated that the experimental subgroup performed better than the control. This study has implications for policy, research and social interventions for parents.

**Keywords:** Child Development, Parenting, Pedagogical Culture, Pedagogical Experiment, Pupils, Teachers.

#### **Introduction**

The family is the primary medium for child development and competency formation. It also prepares children for life in the modern social conditions (Cudjoe, 2017). Generally, it is from the family that a child acquires first practical skills and builds regulatory norms for everyday life. The family is also the major social institution that influences a person morally throughout life. It should be noted that the direct function of the family as a social institution is to teach a child the

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social experiences and cultural norms accumulated by humanity. Nonetheless, this socialization is only possible when parents have sufficient level of pedagogical culture. In addition, it involves their continuous and multistage preparation for the performance of educational functions at home (Nikitina et al., 2015).

Pedagogical beliefs of parents help them to avoid traditional mistakes in family education. Additionally, it makes them find the logical explanations and solutions to non-standard situations and provides certain amount of knowledge in pedagogy, psychology and physiology of children. Parents, in accordance with the Laws of Ukraine – “On General Secondary Education” (together with teachers and pupils) are equal participants in the educational process (Burlaka et al., 2018). Assuming all teachers have a higher professional education, then parents (except parents who are professional teachers) need appropriate pedagogical and psychological training.

Teaching parents is an urgent need and challenge for modern society and schools. The purpose of pedagogical education for parents depends on the level and quality of mastering a certain kind of knowledge by parents. Hence, providing them with assistance in organizing self-education and developing their educational skills and abilities. As a result, various social institutions like school, mass media, and special services are required to increase the pedagogical culture of parents (Wall, 2018).

Additionally, analysis of scientific literature (Doh et al., 2016; Holloway et al., 2014; Wall, 2018) shows that pedagogical culture of parents includes their pedagogical preparedness and maturity as educators, which gives real positive results in the process of family and social upbringing of children. The content of the pedagogical culture has the following components: knowledge of psychology, physiology, medicine and law; pedagogical knowledge and abilities and methods of communication, programs of development and methods of education, the value-moral consciousness of parents, their understanding of their role, responsibility in education and their pedagogical beliefs. If parents do not possess such vital knowledge, family education is carried out blindly. This affects the development of the children and their level of their education (Rowe et al., 2016).

According to Zakirova and Nikitina (2016), pedagogical culture is an integral part of the general culture of the parents. It equips parents with requisite experience for raising children in the family. Consequently, pedagogical culture of parents is embodied in creative educational activities. This serves as the basis for spiritually rich and fully developed personality. Also, it provides a complex and integrative educational approach to parenting behavior. Within the pedagogical culture of parents, sufficient preparation is made available for the upbringing of children in the family. Pedagogical preparedness of parents is characterized by knowledge in areas like psychology, pedagogy, physiology, hygiene, and other skills in raising children (Fonagy et al., 2007; Gerich et al., 2017).

The main parameters of pedagogical culture of parents are moral culture, culture of thinking, culture of speech, communicative culture, didactic culture, culture of labour, culture of gestures, physical culture, aesthetic culture and ecological culture. Moral culture reveals the level of parents' observance of moral norms. The culture of thinking involves the presence of critical reasoning. Likewise, linguistic culture is connected with the ability to speak modern literary language, which corresponds to the norms of literature, good diction, expressiveness and imagery, emotionality and richness of intonations. The communicative culture manifests itself in the ability to attract a child's attention, build trusting relationships with him/her, benevolence in communicating with others and be able to control oneself. Regarding didactic culture, it is the ability to optimally organize the educational process, provide the necessary motivation, and the possession of modern forms and methods of education (Fonagy et al., 2007).

Furthermore, the culture of labour is manifested in the habit of caring about the qualitative and quantitative results of labour and in the ability to work efficiently and productively. Parents demonstrate the culture of gestures through the optimal use of gesticulation; the ability to choose a posture, signs and other motions. Aesthetic culture is ensured by the presence of aesthetic taste, adherence to the ethics of communication, aesthetic appearance of a human and environment. Likewise, ecological culture entails human's ability to behave properly in the environment and maintain personal hygiene while physical culture is associated with a healthy lifestyle. Based on this structure, pedagogical culture of the family can be seen as the interaction between parents and children, through the inclusion of different mechanisms, factors and activities (Nikitina, et al.,

2015; Zakirova et al., 2016). The purpose of this article is to reveal the content and components for developing pedagogical culture of parents.

### Methods

We conducted a pedagogical experiment with parents (182 persons) whose children study at secondary schools of Kharkiv (Kharkiv Gymnasium № 116 of Kharkiv City Council, Kharkiv Gymnasium № 107 of Kharkiv City Council, Kharkiv Pedagogical Lyceum № 4 of the Kharkiv City Council of Kharkiv Oblast).

A pre-and-post design was chosen for this study. At the pretest stage, parents were interviewed and made to fill 42-item questionnaire. The 42-items consisted of 4 blocks: the first block was aimed at revealing knowledge about the pedagogical culture of parents, its levels, types and stages of development. The second – envisaged the diagnosis of skills to apply practically and the forms and methods of interaction with children. The third one – was aimed at determining the levels of self-confidence of parents with respect to the knowledge and skills necessary for the development of the pedagogical culture. The fourth – was intended to find out the difficulties that parents encountered in their interaction with children and teachers. It also identified possible ways to overcome these difficulties.

Consequently, the group was subdivided into 2 subgroups following the pre-test phase; experimental (EG) [n=92] and control (CG) [n=90] subgroups. A methodology for developing pedagogical culture of parents was administered to the EG. These included round table discussions on topics like: “How to help children learn” and “Peculiarities of bringing up children in the family”. Also, consultation on the theme - “The child should grow healthy”, seminar on the topic – “Methods of education in the family” were held for them. Finally, parent-pedagogical conference on the theme - “The Role of Books and Reading in Your Home” was constituted for the EG. However, the CG was offered traditional parenting concepts for discussion without formal guide.

### Results

#### *Pretest phase:*

Findings at this stage showed a low level for all indicators among all respondents. Also, 78 % and 69% of respondents did not answer the questions - “what is the pedagogical culture?” and “what forms and methods of interaction are used in the process of education when communicating with children?” respectively. Summarising the results at this stage, we came to the conclusion that majority of respondents did not have sufficient knowledge about the basics of parents’ pedagogical culture. Also, 78% of respondents believed that school headmasters, administration and teachers should organize the interaction between family and comprehensive educational establishment and only 18% of parents believe that each parent should be able to do this.

#### *Posttest phase:*

Following the pedagogical experiment, the arithmetic mean value  $\overline{X}_{KT}$  (CG) is significantly different from that in  $\overline{X}_{ET}$  (EG) [ $t = 2.69 > t = 1.96$ ], indicating significant shifts that occurred in the process carrying out the methodology for the developing pedagogical culture of parents. The highest results were obtained for components like content ( $t = 7.33$ ) and motivational ( $t = 6.36$ ) criteria. However, there were positive changes (in particular, constructive ( $t = 5.87$ ) for all three components (see [Table 1](#)).

**Table 1. Levels of the developed pedagogical culture of parents (increase in %)**

Components and levels	EG			CG		
	Pre-test	Post-test	Variance	Pre-test	Post-test	Variance
Motivational						
• high	1.62	75.08	+73.46	1.87	5.96	+4.09
• medium	35.92	24.92	-11.00	39.18	66.04	+26.86
• low	62.46	-	-62.46	58.95	28.00	-30.95
Content						
• high	2.91	64.08	+61.17	5.97	25.00	+19.03
• medium	32.04	35.92	+3.88	33.96	47.00	+13.04
• low	65.05	-	-65.05	60.07	28.00	-32.07
Constructive						
• high	11.00	78.96	+67.96	10.07	17.91	+7.84
• medium	42.07	21.04	-21.03	42.16	61.19	+19.03
• low	46.93	-	-46.93	47.77	20.9	-26.87

### Discussion

The study showed that parents' pedagogical culture was best developed through active formal processes than traditional methods. The EG experienced significant increase in the motivational component, compared to the CG. Motivational component of pedagogical culture of parents is made up of a set of parental needs, interests, desires, plans and programs. Formation of this motivational component involves stimulating interests and desires of the parents, taking into account their individual settings (Movkebayeva et al., 2016).

In addition, the EG had significant increase in the content component of the pedagogical culture of parents. This part involves providing parents with reliable knowledge of the psychology and pedagogy for raising children. The main tasks in this capacity include care for the child's health, normal development of his perceptions and senses (eyesight, hearing, smell, taste and touch). Also, it includes the care for the child's comprehensive development, the formation of his speech, elementary knowledge and ideas about the surrounding world through the help of tales, songs, scribbles, tricks, riddles, speedboards and proverbs (Cudjoe, 2017). Other tasks like the creation of a favorable working atmosphere of cooperation and the involvement of the child in folk traditions, active participation in national and family holidays similarly aid psychosocial development.

The constructive component of pedagogical culture of parents is a collection of all types of skills and methods used in parents' educational activities. This provides practical skills for the creative realization of family upbringing of pupils. The complex structure and dynamic nature of the parents' pedagogical culture necessitate the following requirements to be met in the course of its formation. First, a holistic approach to the selection of a set of tools that provide the development of all components of pedagogical culture. Second, the levels of pedagogical preparedness of parents and their individual peculiarities. Third, the continuity in replenishment of knowledge and their close relationship with a personal practice of raising children by each parent (Fonagy et al., 2007; Movkebayeva et al., 2016).

Furthermore, it should be noted that the development of separate components of pedagogical culture of parents cannot take place in isolation. This is because each component necessarily leads to the perfection of another. Thus, the effectiveness of the development of pedagogical culture is ensured by a process in which the main attention is given to a structural model that has a programmatic, purposeful, holistic and continuous character. Such a model takes into account the subjective position of parents as carriers of national and universal values and is realized in their personal educational activities. The effectiveness of the development of pedagogical culture of parents is also facilitated by methods of activating the educational process of parents. This includes discussions on the problems of raising children, analysis of pedagogical situations, solving



pedagogical tasks, use of pedagogical games and individual tasks for parents, aimed at forming personal educational activities in the family (Currie, 2001).

Pedagogical culture of parents as seen from the results should be determined by the following indicators: availability and quality of psychological and pedagogical knowledge, views, beliefs, degree of developed abilities and skills in the education of children, and the stability of interest in the process of education in general. From the results, high, medium and low levels of developed pedagogical culture indicators were noted to have different effects of the outcome. Middle and low levels of each component were seen to have different negative difference after the post-test in the EG. High level which is the most preferable, include parents who had deep and conscious knowledge within the framework of family education. They also had high degree of developed basic skills and abilities and were systematically engaged in the upbringing of children, taking into account their age and individual characteristics, maintain regular contact with school and perform public duties (Nikitina et al., 2015).

Unlike the high level, the medium level included parents who generally had some minimum pedagogical knowledge, but they are not appropriately realized. These parents do not have a clear idea of the purpose, means, and methods of education. They are not always able to apply their knowledge in practice, and their educational skills need further development. Parents of this group generally attend classes for parents' teaching but rarely show activity in public affairs of class and school. More often, they perform one-time assignments and use the educational experience gained in the family. With the help of the school, parents of this group satisfactorily educate their children.

Finally, the low level parents lack part or full knowledge about family education, and were indifferent towards their children and their educational outcomes. They are indifferent to the education and upbringing of children. They do not know how to organize the life of children rationally to solve conflicts that may arise in the family. This may lead to wrong selection of methods for parenting. Consequently, this group of parents is often a risk group (having quarrels, alcohol abuse, cruelty, and inadequate love for children). Such parents and their families usually require special attention.

### **Conclusion**

The essence of the concept - "pedagogical culture of parents", as discussed in this paper is the pedagogical awareness and maturity of parents as educators. This concept gives real positive results in the process of family and social upbringing of children. Analysis of the study's results led to the claim that most parents are not aware of the essence of the concept pedagogical culture, especially the forms of interaction with children, and this causes their fuzziness and disorientation in choosing the content, forms and methods for organizing interaction with children.

The effectiveness of the proposed methodology for developing the pedagogical culture of parents is demonstrated in this study. The results of the confirmed that, though the indicators contributing to the development of the pedagogical culture of parents in all groups were generally improved, the highest ones were recorded by the EG. Consequently, working with pupils' parents and families should be considered as one of the most important directions in the modern teachers' activities. At the same time, it could also be one of the most complicated tasks. Prospect for further study in the development of pedagogical technology that promotes developing pedagogical culture of parents is vital. This should be based on the organization of comprehensive educational methodology and parents' interaction.

### **Conflicts of interest**

The authors declare no conflicts of interest.

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## Co-Infection Alters the Population Dynamics of Infectious Diseases: Mini-Review

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### Paper Review Summary:

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### **Novelty:**

This brief review provides an analysis of co-infection in natural populations, its nature of interaction and effect among pathogens.

### **Abstract**

Infectious diseases are of significant health importance to human and animal life. Globally, infectious diseases continue to present a great challenge to health with regard to morbidity and mortality. This review seeks to analyse from existing evidence, the altering role of co-infection on the population dynamics of infectious diseases. This paper has implications for research, policy and clinical interventions.

**Keywords:** Co-Infection, Infectious diseases, Population Dynamics, Mini-Review.

### **Introduction**

For centuries, infectious diseases continue to present a great challenge to health systems worldwide. They correlate with wars and famine and are known to affect human development and existence (Morens et al., 2004). Disease-induced mortality from infectious diseases depends on several factors. These include features of the host, environmental conditions, features of infecting pathogens and pathogen-pathogen interactions in instances where there are co-infections (Thumbi et al., 2014). For several decades, vaccines and antibiotics have brought improvement in the prevention and treatment of several infectious diseases, and even enabled the eradication of diseases such as small pox (Mack, 1972). Nevertheless, several reports of drug resistance and vaccine blocking have been reported all over the world with new diseases emerging and even those that were considered to be under control re-emerging (Morens et al., 2004).

One of the hurdles identified in the treatment or prevention of morbidity and mortality associated with infectious diseases is the fact that existing interventions usually overlook the possibility of different infections affecting one another (Griffiths, 2013; Susi et al., 2015). There is

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currently a growing awareness that most often than not, infections consist of more than one pathogen species (Balmer et al., 2011). Therefore, to effectively tackle infectious diseases, interactions between infectious agents must be considered.

### **Co-infection in natural populations, interactions and effects**

Co-infection is a common occurrence in natural populations (man and other animals) involving parasites of various taxa, transmission routes and pathologies (Kotob et al., 2016; Susi et al., 2015). Research of specific taxa and groups of individuals indicate that co-infection is very extensive and prevalent in areas endemic with diverse parasites (Griffiths, 2013; Thumbi et al., 2014).

An estimated 30 % of infections, which could even be up to 80% in certain human populations are possibly co-infections (Petney et al., 1998). It is simply defined as the concurrent infection of a species by more than a single type of parasite or pathogen (Griffiths, 2013; Kotob et al., 2016). Co-infections may occur when hosts become separately infected by diverse parasites concurrently. Also, it can occur throughout a sequential infection, when interactions among parasite species cause co-occurrence to be possible (Vaumourin et al., 2015).

Several parasites that infect humans usually coexist within an individual host. Typical examples of co-infections in humans include malaria and helminth infections and co-infections that involves human immunodeficiency virus [HIV] (Thumbi et al., 2014). The effects of co-infections on human health are seldom evaluated. Thus, global estimate of people living with co-infections are deficient (King, 2010).

A study conducted in the Ivory Coast discovered that 75% of village folks were severely co-infected with between three (3) and ten (10) intestinal parasite species (Griffiths, 2013; Raso et al., 2004). Out of an estimated 3 billion individuals who have parasitic worms (helminth), one billion people are co-infected with multiple helminth species (Drake & Bundy, 2001). Furthermore, about 10 million persons are co-infected with HIV and tuberculosis (World Health Organization, WHO, 2018) and in 2016, mortality from HIV and Tuberculosis co-infections were over 370,000 people (Narasimhamurthy et al., 2018).

Parasites/pathogens may either act singly or interact with each other and the host using several mechanisms with variable outcomes on the host's health and survival (Thumbi et al., 2014). Interactions that exist between parasites can either be direct or indirect (Griffiths, 2013). Typical examples of direct interactions are viruses infecting bacteria and helminths transmitting bacteria (Flores et al., 2011). For indirect interactions mediated by the host immune response, it can be opportunistic co-infection by common commensal bacteria where the immune system is repressed by another infection (Vaumourin et al., 2015), and trade-offs between diverse parts of the host immune system (Page et al., 2006). An illustration of indirect interaction is competition between malarial parasites for red blood cells (Antia et al., 2008).

Co-infections impact greatly on host-parasite ecology (Griffiths, 2013). The presence of multiple species in the same individual host can bring to bear additional burdens on the host's health (Brogden et al., 2005; Brooker et al., 2007). Therefore, co-infections impact greatly on the course and severity of various diseases of man and other animals (Kotob et al., 2016; Thumbi et al., 2014). With co-infections, the pathogens are genetically different and may cause pathogenic outcome which causes harm to the host in simultaneity with other pathogens (Kotob et al., 2016). They "alter the host's susceptibility to other parasites, infection duration, transmission risks, clinical symptoms and consequently treatment and prevention strategies" (Vaumourin et al., 2015, p.1).

Also, it is possible that interactions between co-occurring parasites or pathogen strains may affect the progress and persistence of disease epidemics, and consequently their population dynamics (Sundberg et al., 2016). These interactions yield various consequences: the load of one or both parasites/pathogens may increase, one or both may be suppressed or one may be increased and the other suppressed (Kotob et al., 2016). In a study by Susi et al. (2015) using *Plantago lanceolata* infected with two strains of *Podospaera plantaginis*, it was observed that co-infected hosts shed more propagules as compared to independently infected hosts. Their findings provided a better comprehension of how co-infection modify disease load across host genotypes. Epidemiological studies that were conducted in Thailand showed that the elimination of helminth co-infections might increase the frequency of cerebral malaria (Nacher, 2004).

Co-infection between *Plasmodium* spp. and Soil-transmitted helminth infections have been the theme of many researches in humans and animal models. *Plasmodium* parasites commonly co-occur with geohelminths especially hookworms. Some studies showed that the presence of geohelminths resulted in an increase in severity and incidence of malaria (synergistic interaction) while others observed a reduction in the severity and incidence of malaria (antagonistic interaction) (Thumbi et al., 2014). However, a review by Nacher (2004) suggested that the interaction was synergistic. Therefore, infectious agents play a significant role in regulating the populations of several host species across different ecosystems (Thumbi et al., 2014). Depending on the mechanisms by which the interactions occur, co-infections could result in further harm to the host as compared to the collective outcome of the component, or less harm in comparison to the collective outcome of the component infections (Alizon et al., 2008; Thumbi et al., 2014).

According to theory, co-infections have significant effect on within-and-between-host disease dynamics (Susi et al., 2015). Within-host disease dynamics are predicted to alter under co-infections, an assumption which underlies many theoretical models which projects an increase in virulence when a single host is infected with several strains of a parasite or pathogen. The changes that are predicted to occur in within-host infection dynamics might have extreme repercussions on between-host dynamics as well as epidemiological outcomes since both are proposed to be interconnected (Susi et al., 2015).

Interestingly, results of within-host infection may be mediated by the host's response to infection (Susi et al., 2015). Such immune-mediated interactions can create obstruction on preventative measures such as vaccination (Griffiths, 2013). Some vaccines are reported to be less effective in persons with other infections such as helminthes and HIV, human papillomavirus (Geiger et al., 2011; Pons-Salort et al., 2013). There is also a shift in the prevention and control of helminth infections from single drug treatment to that of an integrated approach as a result of co-infections (WHO, 2018). Again, multiple strain infections of *Leishmania infantum* and *Mycobacterium tuberculosis* confound treatment (Balmer & Tanner, 2011).

## Conclusion

In conclusion, the dynamics in co-infection will continue to be a topic of research, clinical and policy interest. Parasites/pathogens may act separately or interact with one another through several mechanisms to produce variable outcomes on the host's health and survival. Since these interactions may affect the development and persistence of disease epidemics as well as their population dynamics, there is the need to shift attention to investigating the consequences of co-infections. Hence, prevention strategies and existing interventions must consider the possibility of co-infections in an effort to prevent and control infectious diseases effectively.

## Conflicts of interest

The author declares no conflicts of interest.

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## **The Theoretical Approaches of Durkheim, Parsons and Luhmann: Intra-traditional Differences, Interdependencies and Contradictions**

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### **Paper Review Summary:**

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### ***Novelty:***

This paper examines the individual differences, interdependencies, theoretical strengths and common flaws of Emile Durkheim, Talcott Parsons and Niklas Luhmann within the broad consensus tradition of sociology.

### **Abstract**

Following an extensive reading of structural functionalism, this paper characterises the theoretical approaches of Emile Durkheim, Talcott Parsons and Niklas Luhmann within the broad consensus tradition of sociology and provide a critical analysis of their individual differences, interdependencies, theoretical strengths and common flaws.

**Keywords:** Antipositivism, Autopoiesis, Conflict, Functional requisites, Functionalism.

### **Introduction**

Structural functionalism is basically a broad perspective which interprets society as structure with interrelated parts. Functionalism addresses the society as a whole in terms of function of its constituent elements such as norms, customs, traditions, institutions and so on. Social structures are stressed and placed at the center of analysis and social functions are deduced from these structures. From this broad perspective, Durkheim, Parsons and Luhmann can all comfortably be described as Structural functionalists (Ritzer, 1975).

While these theorists are all described in one sense as structural functionalists, we find their individual theoretical approaches to analysing society and social processes and how the analysis has transformed over the years as intellectually intriguing. The functionalist approach was implicit in the thought of the original work of Auguste Comte, who stressed the need for cohesion after the social disorder of the French Revolution. This was later presented in the work of Émile Durkheim, who developed a full theory of social solidarity (Cosser, 2010), again informed by Comte's positivism

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in what he termed social facts. Latter functionalists such as Niklas Luhmann and Talcott Parsons can on the other hand be viewed partially as anti-positivists howbeit in the same tradition.

### **Durkheim's Theoretical Approach**

Emile Durkheim like Auguste Comte was worried about the social disorder of his day which is why he dealt with the problem of social order. Durkheim had a lasting impact on the later development of the structural functionalist theory. In his theoretical approach, he sought to explain the apparent stability of societies (Coser, 2010). Like other functionalist, he believed that society is held together by the shared beliefs, sentiments and values of members in a society. That is to say that society exists because of consensus (agreement) to follow the rules to keep society stable. The subject matter of sociology according to Durkheim should be "social facts". Sociology as a discipline according to him should study these "social facts" –those things which are external to individuals and coercive of them in society. For example, social norms, traditions and customs, societal laws, common morality, and so on are things that are external to the individual and yet have coercive power over him (Ritzer, 1975).

On the matter of the evolution of society, he posited that society moves from traditional to modern. Society evolves from traditional to modern state due mainly to population growth. It is within this description that he discusses his central theme and what is arguably his theoretical legacy in the discipline of sociology in detail. This is social solidarity within which his concepts of collective conscience, happiness, anomie and suicide and the social significance of religion are emphasized (Scambler, 1987). His specific conception of the nature of social order was first sketched out in his 1887 essay "*The Positive Science of Morality in Germany*" but more fully developed in "The Division of Labour in Society" [1893] (Durkheim, 1984). The theme of Durkheimian thought is the relation between individuals and the collectivity (Nolan et al., 2004). The problem might be stated thus: How can a multiplicity of individuals make up a society? How can individuals achieve what is the condition of social existence, namely, a consensus? Durkheim's answer to this central question is to set up a distinction between two forms of solidarity.' – mechanical solidarity and organic solidarity, respectively.

Mechanical solidarity is, in Durkheim's (1984) language, a solidarity of resemblance. The major characteristic of a society in which mechanical solidarity prevails is that the individuals differ from one another in a very little way. The individuals, the members of the same collectivity, resemble each other because they feel the same emotions, cherish the same values, and hold the same things sacred. The society is coherent because the individuals are not yet differentiated. The opposite form of solidarity, organic solidarity, is one in which consensus, or the coherent unity of the collectivity, results from or is expressed by differentiation. The individuals are no longer similar, but different; and in a certain sense, which we shall examine some more, it is precisely because the individuals are different that consensus is achieved.

Interestingly, before Durkheim, everyone thought suicide for example to be a personal problem (Kushner et al., 2005). However, the act of suicide in Durkheim's theorising is influenced by social forces –the level of social integration and social regulation and not simply an individual matter as it might appear. He treats religion as a social fact which serves the social significance of social integration and social solidarity in line with his central theme. Having set the tone of the functional analysis of society and human action, we turn attention to the work of Talcott Parsons.

### **Parsons' Functionalism**

Structural functionalism was exemplified highly developed in the work of Talcott Parsons. He is credited with the modern form of this tradition. This was indeed the reigning sociological paradigm during the mid-twentieth century. Although not all functionalists were equilibrium theorists, Parsons' functionalism implied at least an implicit systems analysis (Nolan et al., 2004). Basic functionalism enabled the analysis of part/whole relationships. The whole (the social system) would have certain needs, requisites, survival requirements, equilibrium requirements, or other requirements that would be generally expressed in terms of the "state" (such as a state of equilibrium or a state of integration) of the system as a whole. The whole was composed of internally related subsystems that were (either individually or in concert) fulfilling some survival functions for the whole (social system, or society). If the part (such as an educational institution) did not fulfil its function adequately, then the system whole would falter at the very least, and in the



worst instance, would fail to survive. Thus, in the consensus approach to functionalism, the function of the internal components is to ensure the maintenance of social equilibrium, thus ensuring societal survival (Coser, 2010).

His main theoretical exposition is expressed in his social action theory which was to become his general theory of action (Holmwood, 2005). Parsons's AGIL scheme summarizes four functional requisites or imperatives of any system of action: adaptation (A), goal attainment (G), integration (I), and latent pattern maintenance (L). The AGIL scheme specifies for structural functional theory the needs of any living system and how that system maintains order in relation to both its external environment and internal organization (Coser, 2010). Parsons argues that the AGIL scheme could be employed in the analysis and study of both abstract systems of action and actually existing, concrete societies.

One key tenet of the general theory of action states that any complex of actions or behaviours may be characterized as a system of action in which the parts interact with one another and with the external environment of the system. Each part of the system performs certain functions for the maintenance of the system as a whole. Some of these functions involve the relationship of the system to its external environment (Nolan et al., 2004), while others involve the interrelationship of the parts of the system to each other and to the whole. In addition, functions may be characterized as either consummatory or instrumental. The former describes functions concerning the determination of the ends or goals of a system, while the latter describes functions concerning the means with which the system pursues its ends. Four functional requisites of any system emerge from the superimposition of these two distinctions:

- Adaptation is an instrumental function by which a system adapts to its external environment or adapts the external environment to the system.
- Goal attainment is a consummatory function that defines the goals and ends of a system and mobilizes resources to attain them. Goal attainment is generally oriented externally.
- Integration is a consummatory function that manages the interrelationships of the parts of a system. The integration function maintains internal coherence and solidarity within the system.
- Latent pattern maintenance is an instrumental function that supplies all actors in the system with a source of motivation. It provides normative patterns and manages the tensions of actors internal to the system.

Parsons argued that any system of action could be further broken down into subsystems of action, each of which corresponds to one of the AGIL functions above. The behavioural organism performs the adaptation function, and although it is the subsystem that adapts to and transforms the physical world (Ritzer, 2008). Parsons devoted much more time to analysing the other three subsystems. The personality, or personality system, performs the goal attainment function insofar as it defines objectives and mobilizes resources for the pursuit of ends. The social system performs the function of integration by means of generating solidarity and loyalty, defining acceptable and unacceptable actions, granting rewards, and enforcing constraints. For Parsons, the social system consists of manifold interactions between ego and alter, norms and values, sanctions, status roles, and social institutions. Parsons insisted that social theorists could analyze many phenomena – from firms to entire societies – as social systems. The cultural system performs the function of latent pattern maintenance by supplying motivation to actors through ordered sets of symbols and institutionalized patterns to the system as a whole (Barber, 1994).

Parsons placed a great deal of emphasis on the importance of the cultural system for the stability of action systems (Barber, 1994). The four subsystems are analytically distinct from and irreducible from one another, but one must remember that they are interrelated and interdependent in many ways. Note that the four subsystems are each analytical tools that do not correspond directly to reality; rather, they are aids for thinking about how systems function. While all functional theorists may share in the many criticisms against structural functionalism, Talcott Parsons' theoretical approach faces an additional criticism of over ambition in his attempt to suggest his social systems theory as a general theory (Owens, 2010). Robert Merton for one rejects Parsons' attempt at developing for us a general all-encompassing theory. He advocated for theoretical propositions of the middle –range. In this respect, Merton described Parsons' idea as 'an overambitious enterprise.' He thought pluralistic middle range theories could elucidate limited sets of empirical phenomena and could be subjected to empirical testing. In the next few

paragraphs we turn attention to the work of Niklas Luhmann whose contributions to Systems Theory (ST) unlike Parsons are numerous and complex.

### **The Functional Perspective of Niklas Luhmann**

Luhmann's approach to sociology and functionalism is not wholesale (Holmström, 2007). He is particularly famous for his presentation of society as an autopoietic system. Although a lively debate exists over whether societies are autopoietic, Luhmann firmly believes that they are. The debate centres on the proper component for the social system. Luhmann says that the proper unit or component of the social system is not the individual, act, or social role, but instead the communication (utterance). Such communication in the form of an utterance is central to the existence of society and indispensable. However, the utterance is not permanent. Thus, if society is built around such temporary utterances, which disappear almost instantaneously, it follows then that society is autopoietic and must continually reproduce itself, by reproducing the components (utterances) that produce it or fail to exist.

The concept of autopoiesis has multiple advantages for Luhmann and those of us who follow him. It enables a clear analysis of social reproduction. It also facilitates a cogent analysis of social communication. It further serves as an excellent framework for the analysis of self-reference, including analysis of the notion of second-order sociocybernetics. Still further, it goes beyond traditional open or closed systems analysis by portraying the social system as simultaneously both open and closed. That is, Luhmann represents the autopoietic system as being organizationally closed. The internal autopoietic organizational processes by which the system ensures its reproduction are closed to the external environment and to other social systems. Yet, simultaneously, the system's borders remain open to exchanges of energy and information with its external environment (Luhmann, 1986).

Furthermore, even subsystems, particularly differentiated functional subsystems such as law or medicine, can have their own exchange relationships with the external environment, perhaps independently of the relationships of the larger society. The autopoietic model allows Luhmann to transcend the old part-whole analysis of functionalism with its overemphasis on system internals. Luhmann's systems differentiation theorising is given particular attention here. While theoretical positions like the Parsonian social systems and the capitalist world systems theory grant a basic description of general analysis of systems, they fall short of better explaining certain complex relations between systems parts. This is where I find Luhmann's differentiation theory middle-ranged and empirically -oriented and thus useful compared to the others. His theory gives the opportunity to explain the segmentary, stratificatory as well as the centre -periphery attributes of the existing relations exemplified between systems and their parts. As students of society and particularly of the sociology of work, my understanding of aspects of the work system is further illuminated by Luhmann's detailed explanation of the differentiation of functional systems.

According to Luhmann (1995), every society is divided into various autopoietic and separated (sub)systems such as the legal system, the political system, the scientific system, the educational system or the economic system which "maintain in an overly complex environment, a less complex, meaningful context invariant and are thus able to orientate actions" (Luhmann, 1995, p. 26). Luhmann's systems theory is based on some essential elements one of which is emphasised in the current discussion. They include communication, autopoiesis, differentiation, and structural couplings. As indicated, Luhmann's systems theory unlike others takes self - reference as central to systems and focuses on contingency; that is, the fact that things could be different. His theory demonstrates the complexity in differentiating a system and its environment which many systems theorists ignore. The system itself is always less complex than its environment. It meanwhile recognizes this complexity and how it could affect its own operations and survival as a system.

While systems can never be as complex as their environment, they develop subsystems and establish various relations between the subsystems in order to deal effectively with their environment (Ritzer, 2008). If they did not, they would be overwhelmed by the complexity of the environment. For instance, a sugar manufacturing firm, recognizing the complexities of the socioeconomic and legal environment, establishes a supply chain unit to coordinate the activities of other subsystems of raw material producers and suppliers. The unit in its coordination appraises the manufacturing firm of any disruptions in the supply of raw materials and takes steps to find alternative sources. From this theoretical position, the principal feature of modern society is the

increased process of system differentiation as a way of dealing with the complexity of its environment (Rasch, 2000). Each system as seen above must maintain its boundaries in relation to the environment. Otherwise, it would be overwhelmed by the variations of its environment, break down, and cease to exist (Ritzer, 2008). So, large systems adjust slowly through differentiation to the alterations in their environment in order to survive. These environmental alterations may include political changes, legal frameworks, concrete public demands and even technological changes.

Consequently, the differentiation process becomes a means of increasing the complexity of the system, since each subsystem in this can establish different connections with other subsystems. This allows for more variations within the system itself in order to respond effectively to variations in the environment. The kinds of differentiation that Luhmann discusses are in the form of segmentation, stratification, center-periphery, and functional differentiation. In segmentary differentiation, there is a division of the parts of the system on the basis of the need to fulfill identical functions over and over. So, the system can have subsystems irrespective of their locations having the same structure and fulfilling the same function while in stratificatory differentiation, the systems differentiation is conceived of as a hierarchy. It is a vertical differentiation according to rank and status in the system. Every rank fulfills a particular and distinct function in the system. In this differentiation, inequality is not accidental but essential even to the system. Here, the system is more concerned with the well-being of those in the upper ranks and generally concerned with the lower ranks only when their operations (actions and inactions) threaten the operations and very survival of the higher ranks. The higher ranks have access to resources and a greater ability to become the subject of 'influential communication'.

There is also the center - periphery differentiation which is more or less like a link between segmentary and stratificatory differentiation (Beneria, 1989; Chen, 2007). Functional differentiation is the most complex and most dominant differentiation in modern society. Every unit of the system is ascribed a particular function. Here, what is important is that, if one (sub)system fails to fulfill its task, the whole of the system will have great trouble surviving (Ritzer, 2008). Interestingly however, as long as each of the subsystem fulfills its function, the different (sub)systems can attain a high degree of independence. Luhmann's functionally differentiated systems are a complex mixture of interdependence and independence (Ritzer, 2008). For instance, while a system is dependent on another (sub)system in its periphery for raw materials, as long as the raw materials come as planned (Farrell et al., 2000), that system can be blissfully ignorant of exactly how these raw materials are produced and even the precarious conditions within which the actors within them work (Farah et al., 2010). In order to have any varying effect on the system however, actors in the lower ranks or peripheries must resort to some form of conflict.

### **The Consensus Tradition: Its Conservative Bias, Reductionism, Teleology and Tautology**

Whether in political science, sociology or education, there is arguably no single theory which has attracted much interest and attention than functionalism. Until the mid -1960s where it began to see its dominance and significance reduce, structural functionalism enjoyed quite a lot of theoretical leadership and following especially in America (Nolan et al., 2004; Ritzer, 2010). Structural Functionalism as a theoretical orientation is concerned mainly with the interrelations between social phenomena in general and, more specifically, with the consequences of given items for the larger structure or structures in which they are variously embedded. Functionalists argue that society should be understood as a system of interdependent parts (Nolan et al., 2004). In this orientation, people are seen as constrained to a great extent by cultural and social forces. Here, patterns of social life are seen as the product of existing structural arrangements. As such, action is motivated by ideals, values, morals, traditions, habits, or emotional states.

The early roots of functionalism, that is positivism, was attacked for its reductionism –that is, its propensity to explain individual behaviour in terms of physiological, psychochemical, genetic, or geographical (environmental) influences - “and its consequent inability as a theoretical perspective to account for the voluntaristic, choicemaking, and goal striving tendencies of social actors” (Coser, 2010, p. 563). While these were earlier arguments, attempts by Talcott Parsons to deal with them in the theory he pioneered were insufficient. The farthest he could go in response was that 'human actors were seen as capable of making choices of courses of action, but he incurably adds that these

choices were constrained by biological and environmental conditions and, more importantly, the values and norms governing the social structures in which these actors are enmeshed. Clearly this does not make us understand the voluntaristic, choicemaking, and goal striving tendencies of social actors as are observed daily in society.

It has been argued that structural functionalism has a conservative bias. That is, it is unable to deal with history, change, and conflict and this is seen even in the theoretical expositions given in this paper. To start with, among the main criticisms levelled against the theory is its inability to deal with the past. The theory has been described as inherently ahistorical. In the early days of structural functionalism, most of the proponents heavily criticised the historical evolutionary approach to gain their own entrance into the theoretical space as a credible alternative. Following this, the theory has been unable to adequately deal with history which ties irredeemably into the problem of change. Consequently, functionalists have also been attacked for being unable to effectively deal with the process of change. The perspective is said to be unable to adequately explain how social change occurs. While the earlier criticism deals with the problem of the past, this latter one concerns the theory's deficiency in accounting for the contemporary process of social change. As others have argued, in the structural functionalist theory, all the elements of a society are seen as reinforcing one another as well as the system as a whole. This makes it difficult to see how these elements can also contribute to change. It is important to note however that some other authors believe that this weakness is not with the theory per se but the practitioners as would become clear in this paper.

Arguably, the greatest challenge and frequently mentioned criticism against the structural functionalist theory is its inability to deal effectively with conflict. This in part is because proponents of the theory tend to overemphasise harmonious relationships. Also, as Holmwood (2005) notes, these functionalists tend to see conflict as necessarily destructive and as occurring outside the framework of society. These positions make the theory one that is unable to explain conflict sufficiently in its traditional form according Alvin Gouldner and Irving Louis Horowitz. Methodologically and logically, structural functionalism has often been criticised as basically vague, unclear, and ambiguous. It is said to be ambiguous because it chooses to deal with abstract social systems and concepts instead of real societies. Although no single grand scheme can ever be used to analyse all societies throughout history sufficiently, this is exactly what structural functionalism tries to do. Critics see this attempt at a grand theory as an illusion and recommend as Merton did, historically specific 'middle -range' theories. Also, other theorists have questioned how the theory could help with comparative study and analysis since a part of the system cannot be understood without its system or context.

From the angle of logic, the issues of teleology and tautology have also been raised. Teleology is defined to mean the view that society (or other social structures) has purposes and goals. Thus, in order to achieve these goals, society creates or cause to be created, specific social structures and social institutions. On the other hand, a tautological argument is one in which the conclusion merely makes explicit what is implicit in the premise or is simply a restatement of the premise – this is often referred to as *circular reasoning*. In structural functionalism, the whole is defined in terms of its parts and then define the parts in terms of the whole. In much the same way, a social system is defined by the relationship among its component parts and then the component parts of the system are defined by their place in the larger social system (Ritzer, 2008, p.119). So, because each is defined in terms of the other, neither the social system nor its parts are in fact defined in the end.

Robert Merton for one, as has been alluded to earlier, rejects Parsons' attempt at developing for us a general all-encompassing theory. He advocated for theoretical propositions of the middle – range. In this respect, Merton described Parsons' idea as 'an overambitious enterprise.' He thought pluralistic middle range theories could elucidate limited sets of empirical phenomena and could be subjected to empirical testing. Merton also questioned Malinowski's assumption that every social phenomenon necessarily has function and also the implication that any item was indispensable to a given social structure's operation (Coser, 2010). Merton spoke of functional alternatives and dysfunctions in his functional analysis. His analysis also stressed on the need to be aware of basically structural sources of disorder, of socio-cultural contradictions, and of divergent values within given structures which had been neglected by his predecessors. He sees the idea of

considering societies, social processes, and structures as unambiguously unified wholes as problematic.

Coser (2010) makes the point that Merton's closely argued distinctions between manifest and latent functions [those consequential activities that are present in the actor's mind and those that are not] and his distinguishing of individual purposes from functional effects helped to remove some of the teleological implications that many critics had discerned in the writings of some of his predecessors and contemporaries. Following the many criticisms, the significance of the functionalist theory as an analytical tool declined from the mid -1960s till now. Subsequent to these criticisms however, what is described by Jeffrey Alexander and Colomy as a self –critical strand of functional theory that seeks to broaden functionalism's intellectual scope while retaining its theoretical core – *neofunctionalism* (Coser, 2010), emerged. In these redemptive efforts, the works of Kai Ericson, Smelser, Herbert Gans, Jeffrey Alexander, and Niklas Luhmann (as discussed here) have been particularly helpful in bringing back credibility to this consensus approach (Ritzer, 2010).

### Conclusion

The discussion in this paper portrays all the three theorists as consensus theorists yet their differences and interdependence is particularly remarkable. While Auguste Comte's influence on the work of Durkheim is not contestable, one finds a much improved functional theorising in Durkheim's approach. He developed a full empirically –oriented theory of social solidarity howbeit informed by Comte's positive philosophy. A detailed look at Parsons's work on the AGIL scheme on the other hand shows that it owed a great deal to the thinking of Émile Durkheim. However, Parsons's strand was much more detailed and clearly analytical. In what could qualify as a response to Merton's criticism of Parsons's general action theory, Luhmann in the same tradition of partial antipositivism, presents a middle range systems analysis which could in the thinking of Merton elucidate limited sets of empirical phenomena and in deed could be subjected to empirical testing.

It must be said therefore that all the challenges notwithstanding, the structural functionalist theory continues to be (especially in its present modified form) an important perspective relied upon in the study and analysis of many social situations and processes the world over. So, while one cannot run away from the explanatory inadequacies of the functionalist perspective, its significance as a theoretical model cannot be underestimated.

### Conflicts of interest

The authors declare no conflicts of interest.

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## Notes on *Ergon* and *Ponos* in Plato

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#### **Novelty:**

This paper explores the functions of *ergon* (work) and *ponos* (labour) in Plato's dialogues.

#### **Abstract**

Do the words 'labour' and 'work' carry the same or different meanings? Can they be used interchangeably, and under what contexts? While we find that in the English language and other European languages, such "etymologically unrelated words" are considered as reflecting the same activity, they could mean different or similar things depending on their contexts. In this brief paper, I show how this is the case in Plato's use of *ergon* (work) and *ponos* (labour).

**Keywords:** *Ergon*, Labour, Plato, *Ponos*, Work.

#### **Introduction**

In ordinary language 'labour' and 'work' are often used interchangeably. As Arendt notes, "every European language, ancient and modern, contains two etymologically unrelated words for what we have to come to think of as the same activity, and retains them in the face of their persistent synonymous usage" (Arendt, 1958: 80). In the ancient Greek language, for instance, 'work' is distinguished from 'labour': the Greek word *ponos* (labour) refers to, as in the sense Locke puts it, "the labour of our body", while *ergon* (work) refers to "the work of our hands" (Locke sec. 26, cited in Arendt, 1958). To 'labour' (*ponein*) was equivalent to slavery in the ancient Greek sense because 'labour' was viewed as a degrading activity which sapped out all the energy of man, inhibiting his ability to fully attain his human potentialities (Ackah, 2004, Akinboye, 2005). We can understand this view by looking into ancient Athenian society, where citizens were mostly concerned about the politics of the city-state and left *ponos* to slaves and foreigners. But, it was only those citizens who could afford this leisure of political participation who could totally shun *ponos*; poor citizens could not afford this leisure and were drawn into *ponos* by their

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circumstances, for they had to labour in order to fend for themselves and their families or pay any debts they owed their creditors (Amemiya, 2007; Cartledge, 1998).

This aversion to *ponos* is not only contained in the politics of ancient Greek society, but also in its mythology, so that the distinction between *ponos* and *ergon* was a great deal. For instance, the distinction between *ponos* and *ergon* in Hesiod's *Works and Days* is made in relation to two kinds of Strife on earth (11-12). The first kind of strife, which corresponds to *ponos*, is evil, malicious and oppressive (14-15, 28). Hesiod adds that this kind of strife "fosters war, that evil, and quarrels and contests, the hard-hearted one" (14). By implication, then, *ponos* is considered a curse from Zeus (42ff.), and the cause of the evils of society (ibid.; cf. *Theogony* 226-232). Hesiod relates the other kind of strife to *ergon*, indicating that *ergon* is healthy for men to engage in. The acquisition of wealth through work encourages envy in other men, and this kind of strife, according to him, is good since it drives them to also work and acquire wealth (20-23). It also encourages those who are idle to put up with work (23-24). Thus, this kind of competition in work is good and healthy for the individual (24). In this brief paper, I show, using examples from Plato, how such "etymologically unrelated words" as *ponos* (labour) and *ergon* (work) can assume different as well as same meanings in ancient Greek literature depending on the contexts in which they are used, despite the 'negative' connotation attached to *ponos*.

### Plato's use of *ergon* and *ponos*

The most common uses to which *ergon* is put in Plato's works are 'task', 'function' and 'work'. But *ergon* could describe other things such as a person's role, duty, assignment, or proper work; an action or deed; an occupation or business; the result or product of work or a composition. *Ponos*, commonly used to describe 'labour', constitutes the activities carried out by exertion of physical strength in executing work (Asante, 2017: 87). In what follows, I provide a few examples of how Plato uses *ergon* and *ponos* in his dialogues.

#### ***Ergon*:**

a. denoting task, function, role, duty, assignment:

... we aren't all born alike, but each of us differs somewhat in nature from the others, one being suited to one task [*ergou*], another to another (*Rep.* 370a8-b1; cf. *Laws* 807c2; 921d7; *Euthyphro* 9b5; *Statesman* 284c7).

... the midwife's greatest and noblest function [*kállistov ergon*] would be to distinguish the true from the false offspring ... (*Theaetetus* 150b3-5; cf. *Rep.* 335d10, *Laws* 934b6).

So it's the work [*ergon*] of a carpenter to make a rudder. And if the rudder is to be a fine one, a ship-captain must supervise him (*Cratylus* 390d1-2).

Then to the degree that the work of the guardians [*tò tōv phulakōv ergon*] is most important, it requires most freedom from other things and the greatest skill and devotion (*Rep.* 374e1-3).

"For a man my age that's a big assignment [*ergon*], Socrates," he said (*Parmenides* 136d1).

b. denoting work, occupation:

[There are] those whose bodies are weakest and who aren't fit to do any other work [*ergon*]. They'll stay around the market exchanging money for the goods of those who have something to sell and then exchanging those goods for the money of those who want them (*Rep.* 371c6-d3; cf. *Laws* 807a4; 921a2).

They'll [our citizens] build houses, work [*ergasontai* at a task, trade or business] naked and barefoot in the summer, and wear adequate clothing and shoes in the winter (*Rep.* 372a6-b2).



... we must compel and persuade the auxiliaries and guardians to follow our other policy and be the best possible craftsmen at their own work [*tou heautōn ergou*], and the same with all the others (*Rep.* 421b5-c2).

c. denoting action or deed:

This action [*ergon*, prosecuting your father] would then, it seems, be hated by the gods, but the pious and the impious were not thereby now defined, for what is hated by the gods has also been shown to be loved by them (*Euthyphro* 9c5-7; cf. *Laws* 885b3).

d. denoting result or product of work, or a work of composition (such as poetry, music, etc., *Laws* 829d1):

Then what would you say its result [*ergon*] was? For instance, if I should ask you what result [*ergon*] does medicine produce, when it rules over all the things in its control, would you not say that this result was health? (*Euthydemus* 291e4-6; cf. *Gorgias* 452a7; *Rep.* 374b7; *Philebus* 38d8-9; *Statesman* 287d4-6, 288a10, 288b7, 288e7; *Laws* 921c6; 956a6)

But we prevented a cobbler from trying to be a farmer, weaver, or builder at the same time and said that he must remain a cobbler in order to produce fine work [*ergon*] (*Rep.* 374b5-7).

***Ponos:***

a. denoting social status, hard work, toil or work done with the body or physical strength:

There are other servants, I think, whose minds alone wouldn't qualify them for membership in our society but whose bodies are strong enough for labour [*ponous*, hard-work, work, toil]. These sell the use of their strength for a price called a wage and hence are themselves called wage-earners (*Rep.* 371d9-e3).

There is also the 'Secret Service' [like the auxiliary in the *Republic*], as it is called, which involves a great deal of hard work [*polu-ponos*], and is a splendid exercise in endurance (*Laws* 633b7-c1).

In the first place, no student should be lame in his love of hard work [*ponous*], really loving one half of it, and hating the other half. This happens when someone is a lover of physical training, hunting, or any kind of bodily labour [*ponon*] and isn't a lover of learning, or inquiry, but hates the work [*ergon*] involved in them. And someone whose love of hard work tends in the opposite direction is also lame (*Rep.* 535d).

b. denoting the physical activities constituting work:

Must each of them contribute his own work [*ergon*] for the common use of all? For example, will a farmer provide food for everyone, spending quadruple the time and labour [*ponon*] to provide food to be shared by them all? (*Rep.* 369e2-5)

c. denoting tasks (*ponoi*) that must be performed by physical strength as requirement for completing an assignment, engaging in a competition, assuming a position or securing victory in contest:

... I experienced something like this: in my investigation in the service of the god I found that those who had the highest reputation were nearly the most deficient, while those who were thought to be inferior were more knowledgeable. I must give you an account of my journeyings as if they were labours [*ponoi*] I had undertaken to prove the oracle irrefutable (*Apology* 22a).

... we must find out who are the best guardians of their conviction that they must always do what they believe to be best for the city. We must keep them under observation from childhood and set them tasks that are most likely to make them forget such a conviction or be deceived out of it,

.... And we must subject them to labours [*ponous*], pains, and contests in which we can watch for these traits (*Rep.* 413cd; cf. *Laws* 833e6).

In all these things—in labours [*ponoi*], studies, and fears—the ones who always show the greatest aptitude are to be inscribed on a list. (*Rep.* 537a6-7)

### Discussion

From the examples in literature, we see that *ergon* may stand alone as occupation, while *ponos* may refer “specifically to those activities that are done by bodily exertion (cf. *Rep.* 369e2-5, 371d9-e3)” (Asante, 2017, p. 87), or may describe the actions of the work, that is, the effort (cf. *Laws* 735b7) put into the work (occupation, task or function). But metaphorical descriptions of the activities that go into or depart from philosophical inquiry also employ the use of *ponos*. For instance, tasks (*erga*) that involve the use of mental faculties could be described as one’s labours (cf. *Apology* 22a). At *Phaedo* 84a, the soul must not, while being freed by philosophy, “surrender itself to pleasures and pains and imprison itself again, thus labouring in vain like Penelope at her web.” Thus, in Plato’s use of the words (*ergon* and *ponos*), anyone who has an occupation (*ergon*) could labour (*ponoi*)—mentally or physically—to fulfil his or her task for the common good of the *polis* (cf. *Rep.* 369e2-5, 374b7-9; 421b5-c2). In the *Republic* for instance, the work of the wage-earners is distinguished only in the sense that theirs does not involve mental, but physical effort. The guardians’ work involves mainly mental effort, but their training includes both manual and mental work (*Rep.* 535d, 537a7-8). By implication, *ponos* applies to manual work more than it does to mental work (which fits into the description of *ergon*).

While a cursory glance at the textual evidence seems to reveal that Plato’s use of *ergon* and *ponos* fits exactly into the connotations used in ancient Greek society, a careful consideration of the examples given in Plato’s use of *ergon* and *ponos* shows that, in the *Republic*, Plato does not consider *ponos* as a degrading activity, but mainly as an activity involving the use of physical strength or the physical aspects of the body. It is therefore misleading to quote *Republic* 536e as evidence to support any claim that suggests Plato maintains the status quo:

...no free person should learn anything like a slave. Forced bodily labour does no harm to the body, but nothing taught by force stays in the soul (*Rep.* 536e).

Here, Plato’s emphasis is on the word ‘force’, not on ‘bodily labour’ (*ponos*). For Plato, *ponos* becomes a degrading activity only when it is forced, as will be in the case of slave labour. This is why he employs the analogy of the free person and the slave to communicate the need for children to be taught through play and not by force. He sets the distinction clear enough for the reader to understand that the citizens of the *polis* or the ideal state of the *Republic*, in this case, need, as part of their training for guardianship, tasks involving physical strength. Besides, the third class of citizens have as their occupation work involving manual labour. And it is the proper contribution of each individual, doing their own work, which ensures harmony in the *polis*.

In the *Laws*, which is less ideal than the *Republic*, the degree to which this claim is true is limited; while the training of citizens involves physical exertion, they are barred from engaging in any form of craftsmanship and retailing (*Laws* 848a2-4, 846d). The citizens’ occupation is towards political and civic duties. In this sense, *ponos* denotes the social status of foreigners (who are the only persons allowed to engage in craftsmanship and retailing) and slaves (who, though are barred from craftsmanship, do engage in other manual work) (*Laws* 846d-847a; 806d8-10). Another way to look at this limitation is to see *ponos* in Plato as different from *ponos* in the reality of ancient Greek life by considering the ends of bodily labour. The activities of the wage-earners and the training of the guardians in the *Republic*, as well as the competitions in the *Laws*, point towards an end. The nature or purpose of the activity thus plays an important role in such distinctions. However, this analysis cannot be generalised as representing Plato’s complete thought; like the contrasts between Plato’s ideas in an ideal context and ancient Greek conceptions, *ponos* can be seen to take on different—that is, ideal, real and metaphorical—connotations in Plato’s dialogues. Thus, when it comes to the practical aspects of Plato’s political organisation, the meaning of *ponos* bears no difference from its ancient Greek conception.

### **Conflicts of interest**

The author declares no conflicts of interest.

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## **Letter to the Editorial Office**

### **Employing Psychologist Assistants in Ghana: A Needful Cry**

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#### **Paper Review Summary:**

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#### ***Novelty:***

This letter argues for the employment of psychologist assistants in Ghana. Also, it illuminates the benefits Ghana will gain by recruiting psychologist assistants.

#### **Abstract**

Psychologist assistants in Ghana are graduates with bachelor's degrees in psychology who have been registered by the Ghana Psychological Council. They work under professional psychologists to deliver psychological services and are effective in providing basic psychological first aid in many work settings. Though a common practice in countries like the United Kingdom and United States of America to recruit psychologist assistants, not much has been done in Ghana. By recruiting psychologist assistants, it will provide them the opportunity support licensed psychologists in fields such as education, health, business, security and sports. Thereby, providing a source of employment. In addition, this effort will serve as a means to gain relevant work experience for postgraduate training in psychology. This will decrease the unemployment rate of graduates with psychology and advance the discipline of psychology in Ghana.

**Keywords:** Employment, Ghana Psychological Council, Ghana, Letter, Psychologist Assistants.

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### Dear JARE Editors,

Psychology as a field is becoming a popular area of study in Ghana. With the increasing number of graduates in Ghana, it is common to identify a person with a Bachelor of Science, Bachelor of Arts or Bachelor of Education in psychology. Yet, most of these graduates end up being employed in jobs that are not related to psychology or are unemployed at all. Though employment issues haven't been dealt so well regarding the general profession of psychology in Ghana (Dziwornu et al., 2016), the scope of psychologist assistants (PAs) cannot be ignored also.

To become a PA in Ghana, one must have a bachelor's degree in psychology and be registered with the Ghana Psychological Council (GPC). This provision is supported by The Health Professionals Act, 2013, (Act 587 of 2013) (GPC, 2018). Holders of bachelor's degree in psychology at the undergraduate level read foundational courses in clinical, cognitive, community, counselling, developmental, educational, industrial, organisational, sports, school and social psychology. With the knowledge acquired in the aforementioned areas, PAs are very useful in many organisations where licensed psychologists work (Monsen, et al., 2009).

In developed countries, PAs are very valuable in both public and private organisations. In the case of Ireland and United Kingdom (UK), PAs worked in mental health, intellectual disability, forensic, educational, counselling, organisational and neurological sectors. In both countries, most PAs worked in mental health sectors (Hughes et al., 2015). Additionally, employing PAs according to Monsen, et al. (2009) "prepared them well for applying for professional training courses" (p. 369). Fundamentally, majority of PAs in Ireland and UK chose to work in their sectors because they wanted to gain experience to continue professional graduate education. Additionally, employment opportunities for PAs offered them opportunities for sustainable financial source of income (Hughes et al., 2015).

With these issues raised, it is certain that employing PAs in Ghana is a needful cry. In Ghana, approximately 650,000 and 2,166,000 of the 21.6 million people living are suffering from a severe mental disorder and a moderate to mild mental disorder respectively. This ratio leaves a treatment gap of 98% of the total population who are likely to have a mental disorder (World Health Organization, 2018). As Ghana cries about mental health problems in the country, employing PAs will be an innovation to bridge this treatment and psychological support gap.

To conclude, Ghana stands to gain by employing PAs in various sectors. Ghana will benefit through the employment of PAs as more future psychologists will be groomed through this means. Though mental issues and psychological care remain challenging in Ghana, this will be a step in the right direction to bridge a high treatment gap. Furthermore, formal recruitment of PAs will aid the national development of psychology as both discipline and profession. Consequently, graduates of psychology will be useful in society and this will enhance access to quality psychological care.

### Conflicts of interest

The authors declare no conflicts of interest.

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