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Discovering Thoughts, Inventing Future

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Towards a Communicative City: Applying a New Framework for Understanding Communication and City

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Introduction- Since the Industrial Revolution, with the productivity change brought by technology and modern mass media, the distance between time and space has been shortened and the imagined "urban community" has been brought about. Newspapers, television and other mass media can not only have information functions, but also unite and connect people into a whole through the communication network, thus promoting the integration of urban communities. However, with the development of the internet and the explosive growth of urban population, the rise of individualism has made the connection of traditional urban society declared unorganized, and the traditional mass media has also lost its unified integration ability (Bruhn, 2011:8). The city has fallen into an unprecedented communication crisis, and the construction of a coordinated and unified relationship between different individuals has become an urgent problem to be solved. In other words, the global expansion of the modernization process has led to the fragmentation of society, and people find themselves in a modern world that has lost contact with the roots of communicability.

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Towards a Communicative City: Applying a New Framework for Understanding Communication and City

Longfei Li [α] & Xiangyu Hai [σ]

I. Introduction: Why Communication Network Matters to City Integration

Since the Industrial Revolution, with the productivity change brought by technology and modern mass media, the distance between time and space has been shortened and the imagined "urban community" has been brought about. Newspapers, television and other mass media can not only have information functions, but also unite and connect people into a whole through the communication network, thus promoting the integration of urban communities. However, with the development of the internet and the explosive growth of urban population, the rise of individualism has made the connection of traditional urban society declared unorganized, and the traditional mass media has also lost its unified integration ability (Bruhn, 2011:8). The city has fallen into an unprecedented communication crisis, and the construction of a coordinated and unified relationship between different individuals has become an urgent problem to be solved. In other words, the global expansion of the modernization process has led to the fragmentation of society, and people find themselves in a modern world that has lost contact with the roots of communicability. Internet technology, which originally hoped to improve the efficiency of social communication, has instead intensified social friction, conflict and differentiation, and "communicability" has become a significant dilemma faced by the media society.

Nowadays, the rational communication among people in the megacity space is full of obstacles, the "filter bubble" effect under the intervention of algorithm technology makes the social consensus in the public opinion space difficult, and the embarrassment of ineffective communication exists in the network space under the distraction of information attention. Previous urban researchers paid more attention to the system integration of institutions, organizations and policies, but neglected to understand cities from the social integration of communication and interaction (Bridge, 2005; Friedland, 2001). It is precisely because of the breakdown of public communication networks that order and consensus in modern urban society are difficult to establish. With the rise of network society, urban life is becoming more networked and disembedding. Urban communication researchers believe that attention should be paid to the communication potential of urban public space, and transfer their attention to the action potential of communication technology, calling for a new value concept that can rebuild the order of public space, so as to generate "communicative city" and establish a more humanized new idea of the city (Sutriadi & Wulandari, 2014).

According to Merriam-Webster's Dictionary of the English Language, communicability can be interpreted in two ways. First, it can be used as a noun "communicability", which first appeared in 1533, referring to the infectious ability of certain diseases in medicine, and also referring to the ability of individuals to communicate. Second, as an adjective communicative, first appeared in 1651, communicative and closely related to communication. It refers to the process of communication, transmission and feedback between people and groups. Therefore, understanding the city from the perspective of communication and interaction means highlighting the unique effect of communication network in forming the city, focusing on the communication, connection and integration between individuals, individuals and communities, individuals and platforms in urban public space. Facing this promising research work, the question is what kind of systematic analysis perspective should we adopt to understand the relationship between communication and city, and then carry out the research of "communicative city"? This study will first clarify the current field of academic discourse by reviewing the academic map of communicative city in communication research. On this basis, we propose a systematic framework for the study of communicative city through the theory of communication ecology.

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II. Communicative City as Communication Networks

Since the beginning of the Industrial Revolution in the 19th century, urbanization has brought convenience, but also caused serious urban diseases. Among these urban diseases, communication scholars have keenly captured the "uncommunicable" urban disease, that is, the extensive coverage of seemingly new social interconnection technology and intelligent perception technology has greatly improved the current situation of urban communication (Allison, 2008). However, from the loneliness and strangeness of individuals in the city to the cluster of urban contradictions, the urban disease is a fact that connection is more importance than communication. Therefore, communication researchers propose that the first thing to be solved in the process of promoting urbanization is the value of the city, that is, the "communicative city" as a communication network (Carpentier, 2008). Firstly, communicative city is a kind of urban interactive network based on the concept of "network". Understanding the city from the perspective of communication network means taking the intensive interaction between people and the city as the nature of the city. This network includes three aspects: geographical network connected by urban material and capital through media, social network constructed by interpersonal interaction and coordination, and cultural sharing and identification network realized through symbolic symbols. Furthermore, since complex networks are characterized by emergence, dynamics and self-organization, communicative city resorts to the concept of "complexity" to interpret the dynamic change, reorganization and connection of urban communication networks (Gumpert & Drucker, 2008). In this sense, the urban communication network has the characteristics of what Castells called "space of flow ", that is, the social consensus space without regional proximity, and the media network constructed by social relations and communication technology is in the process of changing and reconnecting (Castells, 2020).

Secondly, communicative city has different evaluation indexes. A study on communicative city by German scholar Kunzmann(1997: 28) put forward the normative concept, he believes that communicative city stresses the role of information communication technologies (ICTs) in city construction, protecting citizens' urban rights from information provision and participation opportunities, creating local identity, civic pride, and civic participation. Kuntzmann's definition emphasizes the social and political dimension of ICTs. The former meets the information and connection needs of citizens' discussion through communication technology, while the latter connects communication with politics, aiming to meet people's needs for political participation. Carpentier (2008), a European communication scholar, also believes that different from the concept of "information city" proposed by Castells, the communicative city has more political implications, namely the ability of citizens to actively participate in and influence urban policies and the ability of cross-regional information flow. He explains the role of alternative media organizations in shaping communicable cities. As a kind of local media hidden in the community and ignored by the mainstream urban culture, compared with the mainstream media, it is more capable of organizing mobilization and media empowerment. Therefore, communicative city should embrace the local "alternative media" and increase the communicable features of openness, respect and inclusiveness. In the view of American communication scholar Jeffres (2010), every community has a communication system. The concept of "communicative city" helps to arouse people's attention on the communication mode that connects people in the city and the relationship between city and communication. It will also help those who plan, design and manage cities to recognize the impact of their activities on communication and how communication in turn affects civil society and sustainable urban development. Specifically, the features of communicative city include six aspects: urban communication mode promotes community attachment; communication connects citizens of different backgrounds; communication tools, models, and policies that help the most vulnerable members; communication mode supports and stimulates the economic activity of the city; communication systems support community culture; communication patterns help perpetuate community traditions. Drucker & Gumpert (2018) argue that the starting point of urban communication research is that cities are places and products of communication. The communicative city is a moral and idealized concept that shows the urban landscape as it should be. Three seminars on Communicable cities held in 2007-2008 reached a consensus on the characteristics of communicable cities, which are divided into three typical clusters: one is social interaction, with a wide range of places and opportunities for social interaction; Second, infrastructure, the city has a good information communication network; The third is civil society, with strong opportunities for civic participation and political venues. The Communicative City Index has even been created to be incorporated into the urban public policy agenda to encourage cities to provide healthy communication environments (Drucker & Gumpert, 2020).

In general, previous studies have conducted preliminary exploration around communicable cities, mainly focusing on two types of urban public spaces, namely urban public places and urban public media. Firstly, through the exploration of urban public interaction places, the purpose is to explore how the physical space establishes a wide connection between

space and people. For example, the qualitative study of public space in urban space, such as historical blocks, community museums, city squares and so on (Drucker & Gumpert, 2020). Secondly, researchers focus on the communication practice of city public media, such as the research on government affairs social media platform (Molinillo et al., 2019). "Communicative city" is essentially a public issue, which is how to rebuild the consensus of social community through rational communication process. Although communicative city is an insightful field of academic research, current research is fragmented and interdisciplinary research is lacking. Therefore, this study proposes a systematic research framework to help clarify how communication forms urban consensus and builds urban community.

III. A Research Framework for Communicative City from the Perspective of Communication Ecology

In the view of communication scholar Kerry Communication, communicative city is not only a study on the communication efficiency of information transmission, but also a study on the social impact of communication (Churcher, 2011). Urban public communication spaces consist of urban public places and public media platforms. How do these media contribute to urban connection and communication? The communication ecological framework provides a middle-level analysis framework and thinking path for the systematic interpretation of "communicative city".

Communicative ecology theory understands communication among groups from a holistic perspective rather than focusing on a single channel of communication. The term "ecology" is used to understand how people interact with each other in a broader public space. Therefore, the research perspective does not limit its analysis to traditional print, broadcast, and telecommunications media, but also to social networking applications, transportation infrastructure that enables face-to-face interaction, and public and private places where people meet and chat (Hearn & Foth, 2007). Therefore, it is appropriate to analyze communicative city from the theoretical perspective of communication ecology, which can understand urban communication media and their communication behavior from an ecological perspective. Foth & Hearn (2007) believed that communication ecology has three levels, including the technological layer composed of devices and media capable of communication; social layer is used to describe the social relations of different groups, including informal groups, formal community organizations or social entities such as companies and laws. discursive layer refers to the actual content of interpersonal interaction, stories, understandings, beliefs, and symbols embodied in specific practices. In addition, changes in the technical layer in the communication ecology can affect the social layer and the discussion layer, either accelerating their changes or inhibiting their changes (Hearn & Foth, 2007; Hearn et al., 2014). We believe that communicable city is a multi-dimensional academic field, covering communication technology, communication narrative and communication subject. By analyzing the series of communicable practices of "technology-narration-subject", this paper provides theoretical reference for finding the reality gap in current urban communication.

a) The communicability of communication subjects

Although the internet facilitates people's remote contact, different backgrounds, ideas and behaviors converge into the media public space, and there are still obstacles to rational communication among people (Peel & Lloyd, 2008). The communicative city is finally implemented by people, and the action purposes are realized through interpersonal interaction. The communicability of the communication subject means that interactive subject rather than the individual can promote the truly meaningful communication. Therefore, the communicative city must first pay attention to the interpersonal communication effectiveness in the urban public space.

Since the Enlightenment, the exaltation of rationalization has brought about the problem of intersubjective communicability. Habermas believes that modernity is an "unfinished design". Rationalization promotes the development of modern society and makes it legitimate, but it also leads to undesirable consequences in society. In Habermas's view, the invasion of the economic andadministrative systems into the living world with the structure of communication resulted in the colonization of the living world -- the constant monetization and bureaucracies of the infrastructure of social interaction (Ingram, 2005). It advocates the transformation from subjectivity to intersubjectivity by reconstructing communicative rationality which is hidden in people's daily discourse structure and shared by interactive participants. With the introduction of modern media, especially social media platforms into urban social life, the former one-way mode of information transmission has been changed. People can express their views on cities in public media spaces such as urban forums, and government administrators can also get feedback to enhance the interactive relationship between the people and power agents. Compared with Habermas' understanding of communicability in the form of subject relations, Mead's symbolic interaction theory and Collins' interactive ritual theory interpret the understanding of communicability in the perspective of action, emphasizing the psychological feedbacks. Around the question "how is meaningful

communication generated", Mead believes that the human mind has the ability to understand symbols, through role play, meaning is created in human interaction. There are two basic characteristics of significance: participation and communicability. But only when the behavior made by an individual leads to the gesture of a corresponding response made by another individual, and also leads to the same response in the individual's heart, such communication is meaningful (Meltzer, 1994). Collins understands intersubjective communicability from the perspective of interactive ritual. Communication between interactive agents plays an integrated role in two core mechanisms: mutual attention and emotional connection. Interactive ritual is essentially to establish a communicative subject relationship, which can produce a series of results, including: promoting group unity, common sense of identity.

Both Habermas's "intersubjective" interaction, Mead's "meaningful gesture", and Collins's "interactive ritual" are common in that they emphasize the connection between subjects and psychological feedback. People live in the urban public space, especially the online virtual network space, communication is happening all the time. However, such urban communication space is often filled with fake news, cyber violence, algorithm bubbles, and vicious communication events. The communicative city has become a more urgent social problem in the current media era with increasing uncertainties and risks. The research on the communicative city should first pay attention to the communication subjects and their daily communication effectiveness.

b) The communicability of communication technology

Communicative city is a communication and interactive network built on certain communication infrastructure. Especially, the rise of networked society makes urban public space increasingly rely on digital media technology to connect people, such as various digital public affairs and public social platforms. The access and use of urban public media platform is another indication to measurethe communicative city.

In modern society, media technology has a profound impact on people's daily life. From printing to the internet, from physical space to virtual space, from manual distribution to algorithmic distribution, from interpersonal communication to machine communication, people have entered the stage of "digital survival", and media platform has become the infrastructure for people to carry out computer-mediated communication. From the technical point of view, communicative city focuses on the communication infrastructure in urban public space, which can be mainly carried out from two perspectives: the research on the access process and affordance of communication technology.

The communicable attribute of technology is firstly expressed in the psychological feeling of using media technology. It designs aims to define the interaction between people and products, while also taking into account people's cognitive abilities. Most scholars choose the technology acceptance model to test the relationship between perceived usefulness, perceived ease of use , andexplain individual behaviors in media technology use (Serenko & Bontis, 2004). Perceived usefulness refers to the extent to which users perceive the use of a particular technology or system to improve performance. The higher the perceived usefulness, the stronger the user's willingness to communicate. Perceived ease of use refers to the amount of effort a user perceives to use a particular technology or system. The easier the media is to access and use, the stronger the communicability of the media. For example, in various urban public spaces such as museums and memorials, the application of new media technologies such as VR and AR is to effectively improve the audience's spatial experience, knowledge learning and even historical dialogue.

The communicability attribute of technology is also reflected in the affordance of media technology. Gibson, an ecological psychologist, first proposed the concept of affordance based on his interest in visual perception, referring to the action possibility evoked by objects or environments. It is independent of the actor's experience and is related to the subject's perception (Gibson, 2014:41). Technological affordance captures how objects (including digital technologies) provide functional possibilities for goal-oriented actors to act (Markus & Silver, 2008). This means that media technology has the potential to inspire action, to enable people to have some practical abilities that can be exercised. For example, Majchrzak et al (2013) proposed four kinds of affordance of social media in the study on influencing people to use social media to participate in online knowledge dialogue. Namely, meta voicing, triggered attending, network-informed linkage and generative role- taking. These technology affordance opens up possibilities for people to communicate, connect and act collectively in urban life. To study communicative city, it is necessary to study how the affordance of these communication technologies promotes the dialogue between individuals and cities and is conducive to reaching consensus.

c) The communicability of communication narratives

From the content level of communication ecology, the study of communicable city also needs to discuss the communication narrative that connects individuals and cities. As the communication infrastructure, the urban public space flows various ideographic symbols such as text and image and the content of face-to-face interaction. However, in order to break through the interpersonal communication

dilemma and realize the communicative city, we need to resort to the effectiveness of communication narrative.

Narrative structure and rhetoric affect people's cognitive schema. From the perspective of audience, human is a kind of "narrative animal" with narrative rationality, and individuals will use narrative rationality standard to judge the stories they hear. Narrative rationality refers to the method of judging the value of a story based on two criteria: consistency and fidelity. The former refers to the likelihood of a complete story, the latter to the extent to which the story corresponds to reality (Fisher, 1984). Goffman (1979) believes that people's induction, structure and interpretation of reality experience rely on a narrative framework, which enables people to locate, perceive, understand and summarize numerous specific information. Framework is a cognitive structure used by people to understand and interpret the external objective world. By comparing traditional narrative with communicable narrative, it can be found that traditional narrative is a closed structure with existing meaning and self-contained structure, while communicable narrative is an open structure, in which everyone can talk to each other. Traditional narrative focuses on "language", while communicable narrative focuses on "context". Traditional narrative is a single narrative, while communicable narrative emphasizes polysemous. Different media have their own "narrative attributes". In order to better promote the communication between civil society and government, with the development of China's mobile internet and the influence of policies, a large number of government affairs media have emerged on social media platforms. They show city news, image and charm by elaborately designing lens language, media text and performance image, and promote the relationship between residents, city and government.

Communication narrative has always been the core of communication effect. Communicative city cannot do without communication narrative framework, which highlights the scarcity and efficiency of communication in the increasingly complex network society.

IV. Conclusion

With the growth of urban population and the impact of globalization, relying on urbanization alone is not an effective solution to social problems. "Communicative City" is an interdisciplinary research field focusing on the role of urban communication and interactive networks in urban integration to address social issues in a more effective way. Throughout the current academic research, there is no clear explanation for how to systematically study communicative city. Therefore, this study proposes a framework of communication ecology, which is illustrated from three aspects: technical layer, social layer and content layer. Urban public space, including offline physical public space and online virtual public space, are valuable public resources that connect individuals and cities to establish more humane communication infrastructure and to enhance effective interpersonal interaction, and to implement more effective narrative persuasion for building communicative cities in the future.

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Exploring Motives and Strategies in the Production of Knowledge in the University Context by the Example of Academic Career Trajectories

By Marina Hennig, Emre Bilgin, Omar Shehata, Aimée Tina Booh, Seraphine Domes & Marie Nottebaum

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Abstract- Current research has shown that the combination of implicit and explicit knowledge among various actors is particularly crucial to the production of knowledge and that the characteristics of social relationships and resulting networks impact on how proficienty is acquired, transferred, absorbed, and applied. Although investigations have suggested that the actors involved in knowledge production are active and strategic agents, who differ considerably in their abilities to incorporate and generate knowledge, they are mostly referred to in terms as nodes or black boxes. In this regard, relationship research has demonstrated that actors differ in terms of motivations and abilities to share information and knowledge. Such motives are often strategic.

Keywords: knowledge production, tacit knowledge, university research, social relationships, qualitative research, knowledge transfer, knowledge acquisition, knowledge networks, scientific collaboration, implicit knowledge, explicit knowledge, academic careers, research methodology, qualitative interviews, sociocultural factors.

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Exploring Motives and Strategies in the Production of Knowledge in the University Context by the Example of Academic Career Trajectories

Marina Hennig [α], Emre Bilgin [σ], Omar Shehata [ρ], Aimée Tina Booh [ω], Seraphine Domes[¥] & Marie Nottebaum [§]

Abstract- Current research has shown that the combination of implicit and explicit knowledge among various actors is particularly crucial to the production of knowledge and that the characteristics of social relationships and resulting networks impact on how proficienty is acquired, transferred, absorbed, and applied. Although investigations have suggested that the actors involved in knowledge production are active and strategic agents, who differ considerably in their abilities to incorporate and generate knowledge, they are mostly referred to in terms as nodes or black boxes. In this regard, relationship research has demonstrated that actors differ in terms of motivations and abilities to share information and knowledge. Such motives are often strategic.

But when and how actor's strategic motives affect the flow of information and knowledge while creating and acquiring knowledge, and which role internal knowledge structures play in this process the research has been neglected.

Our objective was to pursue the question of when and how strategic motives and internal knowledge structures affect the appropriation and transfer of knowledge.

To this end, we re-analyzed eight qualitative interviews originally carried out a study on the influence of social relationships on professors' career trajectories in 2015/16. With the help of the documentary method, different strategies and motives were identified. It became apparent that reasons and strategy are closely interconnected, and that knowledge production is closely linked to the respective field in which this knowledge is relevant. In this paper, such field-specific motives and strategies are illustrated by the example of career networks in science.

Keywords: knowledge production, tacit knowledge, university research, social relationships, qualitative research, knowledge transfer, knowledge acquisition, knowledge networks, scientific collaboration, implicit knowledge, explicit knowledge, academic careers, research methodology, qualitative interviews, sociocultural factors.

I. Introduction

While classical approaches mostly centered on formal organization in order to better understand knowledge transfer, more recent research has focused on networks in which knowledge is transferred *(cf. Brennecke, 2020; Phelps et al., 2012; Sousa & Rocha, 2019)*. While the latter perspective concentrates on cooperation as a form of interactive exchange, the network approach may do justice to the complexity of knowledge transfer with a view on intra- and inter-organizational structures, formal and informal forms of exchange, and other interesting perspectives. For example, current research has shown the characteristics of social relationships have an impact on how knowledge is acquired, transferred, absorbed, and applied. In this connection, the actors involved in knowledge production are considered to be active and strategic agents who differ substantially of their abilities to gather and create knowledge. Nevertheless, "with some exceptions, knowledge networks research at all levels treats actors (i.e., network nodes) as black boxes" *(Phelps et al., 2012, p. 1148)*.

Although relationship research has argued that actors differ of their motivations and abilities to share information and knowledge and that such motives are frequently strategic, little attention has been paid to individual actors' roles. At the same time, such inquiries have largely neglected the question of when and how actors' strategic motives affect the flows of information and knowledge among one another in generating and adapting knowledge and as to which role internal knowledge structures play in this context.

Thus, our objective is to explore the issue of when and how strategic motives and internal knowledge structures affect the appropriation and sharing of knowledge. To this effect, we selected the field of science in which knowledge is permanently generated, transferred, and adapted. We reanalyzed eight qualitative interviews originally carried out in the framework of a study on the influence of social relationships on professors' career trajectories in 2015/16. (see Hennig & Federmann, 2018).

First, we enlarge published insights into knowledge networks, forms of knowledge, and various aspects of knowledge production. We then briefly describe our systematic approach and demonstrate, based on multiple interview extracts, which motives and strategies of knowledge production can be identified.

II. State of Research and Theory

Knowledge networks can be seen as sets "of nodes – individuals or higher-level collectives that serve as heterogeneously distributed repositories of

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knowledge and agents that search for, transmit and create knowledge – interconnected by social relationships that enable and constrain nodes' efforts to acquire, transfer and create knowledge" *(Phelps et al., 2012, p. 1117)*. Such knowledge networks constitute the internal knowledge structures in which actors produce knowledge. Knowledge production in such networks depends, in turn, on the network and relationship properties as well as the properties of the individual actors who make up those networks. Before exploring the issue of actors' motives, strategies, and practices regarding exchange processes in knowledge networks, it is important to build up a basic understanding of the structures and flows of knowledge.

a) Knowledge forms

Research into the transfer of bodies or stocks of knowledge has frequently made a difference between implicit and explicit knowledge *(cf. Kind & Hilber, 2006; Phelps et al., 2012; Brennecke, 2020)*. In this regard, tacit knowledge is seen as expert knowledge based on experience, which thus can be explicated to a limited extent *(Kind & Hilber, 2006, p. 3)*. It is never completely put into words, as expertise – i.e., skills – is closely associated with practice *(Kind & Hilber, 2006, p. 3)*. In research practice, expert knowledge is defined as a collection of competencies, including the "perception of the situation, cautiousness, ingenuity, insight, and situational judgment" *(Combe & Kolbe, 2008, p. 870, quoted by Halder, 2019, p. 53; own translation)*. Due to its high degree of specialization, research can be seen as networks, in which, through of implicit knowledge, affirmation, and improvement are possible even though explicit understanding does not cover all contents *(Halder, 2019, p. 58)*. This also includes the ability to assess what has not yet been realized and how such knowledge could be produced in the future *(Halder, 2019, p. 66; Bruns, 2013, p. 73)*. Implicit knowledge falls into oblivion when the respective activities are no longer performed. Correspondingly, such knowledge is transmitted in close social bonds.

Imitation of superiors (experts) is the purest form of implicit knowledge transfer. Subsequent generations learn how to carry out activities by observing and imitating those activities *(Halder, 2019, p. 65)*. Apart from imitation (demonstrating and replicating), concrete methods of transmission also include thinking aloud, which makes decisions more comprehensible, and claiming questions that help illustrate practice *(Kind & Hilber, 2006, p. 5)*.

Unlike implicit knowledge, explicit knowledge is formalized and easily conceived and communicated. Such knowledge can be completely articulated verbally with more or less complex statements, as it does not relate to abilities or the transmission of skills but rather to superordinate concepts or regulations that can be talked about. Explicit knowledge forms a network of interconnected statements, a "nexus of details" (*Halder, 2019, p. 69; own translation)*, which attempts to map knowledge structures. In the course of such mapping, explicit knowledge can be brought into question, discussed, and transmitted. This process facilitates compilation of present knowledge and thus creates new knowledge *(Kind & Hilber, 2006, p. 3)*.

Implicit knowledge is transformed into explicit knowledge in five steps. First, there must be an exchange between actors in which an attempt is made to render knowledge clear. Second, an explicit concept may then emerge from this discourse. Third, this concept is further explained. Fourth, the conception further specifies the implicated ideas as a template for a complete model or a prototype. Finally, after a model has been developed, actors may easily transfer knowledge, as a tangible and explicit stock of knowledge is now available. This phase model refers to the process of concretization, which is typical of the transition from implicit to clear knowledge *(Kind & Hilber, 2006, p. 9)*.

While implicit knowledge requires more profound relationships and strategies to remain transmissible, codified (explicit) knowledge can be exchanged between actors if wanted. As how clear knowledge spreads in knowledge networks are affected by present structures and practices, we will review current insights in the following.

b) Network properties and knowledge production

Structural network research, there are various findings on how the network properties affects the creation, transfer, and adaptation of knowledge in interpersonal relationships (*cf. Phelps et al., 2012)*.

i. *Knowledge creation*

Knowledge creation typically refers to the development of new knowledge in the form of ideas, practices, research work, technical inventions, and products *(Phelps et al., 2012, p. 1119)*. Various network properties affect individuals' incentives to generate their knowledge. In an overview, Phelps et al. (2012) summarized several key insights of network research into knowledge creation. For example, the knowledge-based diversity of actors' direct contacts fosters the generation of new knowledge *(Phelps et al., 2012)*. Furthermore, social cohesion in networks improves knowledge flows. In particular, strong bonds produce intensive knowledge exchanges. As close relationships strengthen trust and mutuality between network members, a higher level of network density can increase individual knowledge production, especially in individuals with different levels of professional knowledge *(cf. Phelps et al., 2012)*. At the same time, collaboration experience between people with diverse expertise facilitates the ability to transfer knowledge to others *(cf. Phelps et al., 2012)*. By contrast, weak ties allow for access to manifold expertise by means of

bridging structural holes, which in turn improves creativity and enhances the potential for new recombinations of such expertise *(cf. Phelps et al., 2012, p. 1126)*. These results mark a field of tension between bandwidth and structural diversity: While social cohesion increases the flow of information and knowledge, structural holes which create access to diverse knowledge are at once reduced *(Phelps et al. 2012: 1126)*.

Similar conflicts have been identified with network density. Dense networks increase the speed, extent, and preciseness of information diffusion in networks and foster the network members' innovative power *(cf. Phelps et al., 2012, p. 1224)*. At the same time, such dense structures minimize the diversity of information *(cf. Phelps et al., 2012, p. 1133)*. While rapid information diffusion improves innovative capacities and network performance, a decrease in information diversity reduces such capacities and performance.

ii. *Knowledge transfer/learning*

Knowledge transfer is closely connected to knowledge creation. This concept refers to the efforts of a source to share information and knowledge with recipients and recipients' efforts to acquire and absorb (i.e., to learn) such information and knowledge *(Phelps et al., 2012, p. 1119)*. Individuals' respective motivations to impart their own knowledge are affected by various aspects. Brennecke (*2020, p. 19*) emphasized informal structures that facilitate the transfer of tacit (implicit)[1] knowledge. As mentioned above, higher flexibility, open networks, and structural holes facilitate innovation and support for problem-solving. Whether structural holes or relationship density in networks are more likely to foster or rather impede information transfer depends, amongst others, on the kind of tasks involved *(Phelps et al., 2012, p. 1123)*. In the context of knowledge transfer, formal structures are assessed as being conducive due to their stability and reliability *(Brennecke, 2021: Slide 3; Soda et al., 2021, p. 28ff.)*. However, the positive impact of network stability weakens the positive effect of both structural holes and the content-related heterogeneity of knowledge and thus has a particularly negative impact on creativity and innovation (*Soda et al., 2021, p. 28ff.*).

iii. *Knowledge adaptation/implementation*

Knowledge adaptation is based on the decision and ability to apply or implement individual knowledge elements, frequently in the form of a product, a practice, or a paper (Phelps et al., 2012, p. 1119). Little is presently known about the motivation to adapt knowledge in social relationships.

Actors' network positions[2] appear to have a key impact on knowledge adaptation. The likelihood of knowledge adaptation has been shown to increase when relationships with actors having adapted knowledge previously are based on social proximity (the quantity and intensity of direct connections) (*cf. Phelps et al., 2012, p.1131*). Moreover, actors' centrality (see footnote 1) affects the ability to absorb knowledge. In the presence of low absorptive capacity, the costs associated with maintaining numerous relationships may exceed their knowledge benefits *(cf. Phelps et al., 2012, p. 1127)*. While this applies especially to codified knowledge, the efficiency of the transferal of implicit knowledge is enhanced through direct relationships (cf. Phelps et al., 2012, p. 1127). The structural equivalence[3] between previous and potential adapters increases the chances of knowledge adaptation *(Phelps et al., 2012, p. 1122)*, and structurally similar individuals in organizations are very likely to learn and know similar things about their organizations *(cf. Phelps et al., 2012, p. 1122)*.

In summary, despite their conceptual differences, the aspects of knowledge production discussed here are closely interconnected. When knowledge is created, cognitive and other resources are required to facilitate its transfer so that implicit and explicit knowledge can be adapted and used in subsequent recombination efforts *(cf. Phelps et al., 2012, p. 1119 ff.)*.

c) *Strategies, Motives, and Practices*

Whether and how knowledge is produced, transferred, or adapted depends particularly on actors' motives, strategies, and practices in knowledge networks.

A key premise in network research is that actors' various interests result from the different positions or statuses they occupy in network structures (*cf. Burt, 1982; Hennig & Kohl, 2012*). In this connection, the term position or status is linked to the role concept (*cf. Hennig & Kohl, 2011, p. 43*). This concept is defined as the entirety of cultural patterns (attitudes, value judgments, and behavioral expectations) connected to a given status (*cf. Hennig & Kohl, 2011, p. 43*). "The social order and one's own position in that order structure the perception of the action situation and affect the actors' interests. Actors in similar structural positions have aligned interests because they occupy homologous positions within the structure. This also holds in the absence of a common reference group. The actors recognize their positions by symbolically playing through others' positions and their benefit evaluations in role play" (*Hennig & Kohl, 2011, p. 44; own translation*).

In the network perspective, actors always assess their behavior to others in similar situations: "The

[1] Tacit and implicit knowledge would be used synonymously in the text.

[2] Individuals' network positions indicate their social proximity to other in a given network. In other words, the term centrality used in this connection indicates the extent to which an individual is both directly and indirectly connected to others in that network.

[3] Structural equivalence is based on the similarity between two actors' network relationship profiles (Phelps et al., 2012, p. 10).

more similar a position is to one's own, the larger its weight as a reference point for action. In this connection, the similarity is defined as a continuously varying distance between the positions" (*Hennig & Kohl, 2011, p. 45; own translation*). The benefit of individuals' action alternatives is determined by other relevant actors' status positions (*cf. Hennig & Kohl, 2011*). The assumption behind this insight is that actors' structural positions and role sets form their interests while also affecting the evaluation of the situation and resulting action options and the actors' specific actions (*cf. Hennig & Kohl, 2011*). "In turn, the actions themselves can then rebound on and modify the relational patterns" (*Hennig & Kohl, 2011, p. 45; own translation*). Research has shown that simple and codified knowledge (explicit knowledge) transfers more easily than complex implicit knowledge. However, competition may reduce the knowledge exchange between actors (*cf. Phelps et al., 2012, p. 1129*). Actors compete for resources provided by others, which they jointly use. This serves to enhance the incentive to imitate one another in an attempt to ensure that no single actor is at an advantage. While increasing equivalence between previous and potential imitators betters the chances of alignment, increasing equality between members of a given organization sharpens the similarities between what they learn and know about their organization (*cf. Phelps et al., 2012, p. 1122*).

However, research has also suggested that strong inter-organizational bonds can have a negative effect, e.g., previous alliances with the same partners may reduce the current performance output of project alliances (*Phelps et al., 2012, p. 1133*). In addition, increasing trust between partners reduces their innovative power, as they are bound to relationships at the expense of access to new partners' manifold knowledge (*Phelps et al., 2012, p. 1133*).

The "assumption that forms and structures of social relationships lead to similarities in behavior" (*Hennig & Kohl, 2011, p. 45; own translation*) and "[…] that these forms and structures of social relationships can be interpreted leads to a fragmentary explanation only" (*Hennig & Kohl, 2011, p. 45; own translation*) for motives, strategies, and practices in knowledge production.

Bourdieu's concept of habitus can help close this gap as it comprises all facets of social life: "The habitus is not only a structuring structure, which organizes practices and the perception of practices, but also a structured structure" (*Bourdieu, 1996, p. 170*). The effective – structuring – aspect of the habitus is especially crucial to the implementation of knowledge practices. The habitus develops through the internalization of material, cultural, and social conditions of existence and is a both quasi-permanent and flexible system of group-specific patterns of perception, thought, and action (*cf. Hennig & Kohl, 2012, p. 22*). At once, the habitus constitutes actors' forms of practice and associated everyday perceptions. The various manifestations of the habitus depend on individuals' experiences and the social positions they hold in social space (*cf. Hennig & Kohl, 2012, p. 22*). Actors' habitus is entrenched in their bodies and thus largely unconscious to them (cf. Bourdieu, 1990). How people think, perceive, and act depends on the thinking, perceptions, and actions of the social actors with whom they are connected and, or the social networks they are embedded in. With whom they establish contact depends on their thinking, perceptions, and actions. Various things form an interconnection in the habitus, a specific configuration: "[…] how one speaks, dances, laughs, reads, what one reads, what one likes, what acquaintances and friends one has, all of this is closely interrelated" (*Bourdieu, 1992a, p. 32, quoted by Hennig & Kohl, 2011, p. 69; own translation*). The habitus thus comprises "dimensions of taste, lifestyle, physical and emotional attitudes, and patterns of social practice and relationships as well as mentalities and ideological worldviews" (*Bremer & Teiwes-Kügler, 2010, p. 255; own translation*).

As a modus operandi, the habitus does not only confine social actors' practice forms but creates a space of possibilities for those actors. The habitus sets the conditions for the strategic knowledge practices with which actors structure and manipulate their environments. It determines how practices can be implemented via internalized "schemes of perception, conception, and action" (*Bourdieu, 1990, p. 60*). It sets a framework in which motive-guided strategies can be implemented with a certain degree of flexibility (*Bourdieu, 1990, p. 61f.*). Habitual characteristics affecting this practice include individuals' gender and positions within a hierarchy.

In the university context, the role of gender finds expression in the construction of scientific personalities and especially professorships. The construction of the typically male role of the professor as a creative genius is associated with the premise that women do not share these characteristics and are situated outside of this constructed role. Thus, they are excluded from the personality construction that creates the image of the professor in the first place (*Engler, 2000, p 139f.*). This exclusion is relevant to the production of knowledge in that the premise of research, guiding who is to be seen as a legitimate actor, excludes certain groups. Thus, actual performance in knowledge-producing fields is not in accord with associated recognition in the individual actors' personality construction (*Engler, 2000, p. 143ff.*). Not only does the question arise as to how knowledge is created, transferred, and adapted, but also how visible precisely these processes are and in what way the resp. work underlying such knowledge practices is perceived and appreciated, whereas the perception is associated with gender-specific habitus.

Moreover, other aspects of the habitus are reflected in the case of professorships, which are connected to the actors' positions in the university context. Professorships bring together capital in terms of recognition, financial means, and formal and micropolitical influence on university processes. In this position, professors dispose of means they distribute, thus impacting knowledge production at universities and particularly among their own non-tenured staff (*Hüther & Krücken, 2010, p. 168*).

The diverse forms of capital solidify in the habitus and affect processes at the universities. Professors thereby take a special position within knowledge production, with which the creation of new knowledge can be strategically controlled. For example, professors may use doctoral theses as a monitoring tool applied to maintain the homogeneity of contents and to curb the production of opposing stocks of knowledge (*Bourdieu, 1988, p. 153f.*). By sustaining the specific academic habitus, knowledge production thus remains a "cultural production for the purposes of reproduction" (*Bourdieu, 1988, p. 224*).

The manifold strategies applied to implement knowledge practices shown in research originate in actors' various habitus and scientific settings. In this connection, knowledge practices refer to those that specifically administer knowledge to assert individuals' own interests. In the following sections, we will present some of the known knowledge strategies to demonstrate how people steer knowledge fluctuation in interactions with peers and the motives that drive such strategic practices.

Research has identified information exchange in groups as a cooperative process. However, individual group members' information in groups is often not exchanged or bundled. Therefore, information exchange can be seen as embedded in a mixed-motive conflictual setting (*cf. Steinel et al., 2010*). Depending on social motivations, actors decide strategically whether to share their knowledge (to do the good thing) or rather to keep it to themselves and hide it (to do the bad/ugly something) (*cf. Steinel et al., 2010*). While individuals with prosocial motivations (also referred to as prosocial) make their undivided information available to their groups, thus contributing importantly to group decisions, egotistical motives may lead to deliberately withholding or even concealing and distorting undivided knowledge (also referred to as proselves).

Research in knowledge hiding[4] has shown such action to frequently be associated with interpersonal distrust (*Connelly et al., 2012*). Especially in situations marked by competitive incentives, shared information is mainly bundled in the group. In this connection, bundling pre-shared information can prove to be functional since other group members thereby confirm the validity of the information. Thus, confidence in the information others provide can be strengthened, and relationships and information exchange be fostered (*Steinel et al., 2010*).

According to Blau's social exchange theory, positive relationships are based on the norms of reciprocity and expectations regarding trust, honesty, and mutual assistance (*Blau, 1968; cf. Blau, 1964; Buller & Burgoon, 1996)*. Individuals who voluntarily and spontaneously engage in positive behavior towards others implicitly elicit similar yet unspecified reciprocal behavior. Exchange expands over time as ongoing obligations are fulfilled, and new obligations are established, thus reinforcing trust between the parties (*Blau, 1964; Blau, 1968*). "When obligations for benefits received are discharged by providing benefits in return, both parties profit from the association, and their exchange of rewarding experiences fortifies the social bond between them. A man who helps others earns their gratitude and appreciation, and he puts them into his debt, which promises to bring him further rewards in the future" (*Blau, 1968: 453*). Consequently, sharing knowledge for prosocial motives may encourage others' prosocial behavior, whereby all those involved in that knowledge exchange profit from new information.

At the same time, the reciprocity norm of exchange theory also implies the obligation to reciprocate the benefits gained in exchange. If this social obligation is not fulfilled, others are deprived of the incentive to continue the cordialities (i.e., knowledge sharing; *Blau, 1968, p. 452*). Accordingly, hiding or with holding knowledge in response to prosocial behavior can lead to distrust[5], future pro-self behavior, and subsequently ineffective social exchange (*Connelly et al., 2012, 68; cf. Blau, 1964*).

Moreover, social exchange generates context-specific power inequalities and status boundaries between those concernced. This is because by giving assistance or a present (i.e., knowledge sharing), a claim is implicitly made to a superordinate status, whereby the addressee is forced to compensate (by using appropriate gratefulness or assistance in return) and "strengthen bonds of indebtedness" (*Blau, 1968, p. 454f.*). "If they return benefits that adequately discharge their obligations, they deny his claim to superiority, and if their returns are excessive, they make a counterclaim to superiority over him. But if they fail to reciprocate with benefits that are as important to him as his are to them,

[4] Connelly et al. (*2012, p. 65*) defined knowledge hiding as "an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person".

[5] Distrust is often defined as a "lack of confidence in the other, a concern that the other may act as so to harm one, and that the other does not care about one's welfare, intends to act harmfully, or is hostile" (*Grovier, 1994, p. 240, quoted by Connelly et al., 2012, p. 68*). Distrust develops when "an individual or group is perceived as not sharing key cultural values" (*Sitkin & Roth, 1993, p. 371, quoted by Connelly et al., 2012, p. 68*).

they validate his claim to superior status" (*Blau, 1968, p. 455*). Thus, information sharing can serve the purpose of being able to claim future support or information by using of a superordinate role and thereby secure advantages (pro-self).

Knowledge hiding can manifest itself in various ways: While knowledge hoarding refers to accumulating knowledge to be shared or not later, knowledge hiding describes the deliberate concealment of knowledge requested by others (*cf. Connelly et al., 2012, p. 66*). Thus, knowledge hiding is not simply seen as the simple absence of sharing but rather as a conscious attempt to withhold and conceal knowledge. While knowledge hiding may be subject to various motives (e.g., prosocial, instrumental, idleness, or egoism), deficient knowledge exchange is probably to be ascribed to insufficient knowledge itself (*Connelly et al., 2012, p. 67)*. Connelly et al. (2012) identified three strategies applied to hide knowledge among the staff of a company: 1. Playing dumb: staff feigned "dumbness" and ignorance upon being requested to provide a specific piece of information; 2. Evasive hiding: team passed on false information or made delusive promises to deliver complete answers in the future, although this was never their intention; and 3. Rationalized hiding: staff offered reasons for failing to supply the requested knowledge as it could not be provided (e.g., confidential information to be held under lock and key) or by blaming others.

Individuals' positions within a knowledge network may also encourage the strategic withholding of knowledge. Cohen and Levinthal (1990, p. 132) suggested that, in the case of differences between external expertise and expertise within an organization, individual members of the group are likely to adopt a gatekeeping role, comprehensibly transmit crucial information to the internal staff, and monitor the external environment for helpful information. In such positions, these individuals or nodes in the network can consciously and strategically transmit or withhold information to pursue their interests. However, as the central position may lead to actors' information transmission being overloaded, passing on and withholding information need not always be strategically intended (*Schilling & Fang, 2014, p. 10*).

Another strategy of knowledge acquisition develops in providing assistance with work-related problems. According to Shah, repeatedly giving assistance, e.g., in problem-solving, increases the helping actors' levels of performance (*Shah et al., 2018, p. 427*). For this reason, it may prove useful to consider assistance in knowledge networks not only as a disadvantage but also as a chance to enhance one's stock of knowledge. Moreover, actors may profit from becoming involved with "difficult" actors in networks and requesting assistance, as they thus gain access to exclusive understanding and advantages (Brennecke, 2020, p. 36). In both cases, networks can be instrumentally utilized to achieve targeted learning or obtain exclusive information.

Actors apply various strategies in knowledge production, whether passing on or appropriating knowledge. They hide and transfer information, and they impede or actively steer the flow of knowledge according to their interests. Such practices are closely associated with the given habitus of the knowledge producers and their networks. This is because the framework and scope of action governing which practices may come into question in the first place develops in this context. Therefore, knowledge production does not consist merely in receiving and passing on new or known knowledge between actors. Rather, it reflects a process guided by habitus, which yields various strategies, practices, and motives in generating, adapting, and transferring knowledge.

III. Interviews: Science and Knowledge Networks

Based on qualitative interviews, various motives, strategies, and practices applied in knowledge creation among scientists in the natural and social sciences while taking the habitus into account were worked out. To this end, we re-analyzed eight interviews based on a study on the influence of social relationships on professors' career trajectories in 2015/16[6] (Hennig & Federmann, 2018). The participants in this problem-centered interview were four women and four men, each holding professorships at various German universities, who reflected on their careers and the actors involved in those trajectories. The transcribed interviews were analyzed in three steps.

First, working definitions that captured the features of motives and strategies were generated from the theoretical considerations. As research had shown motives and strategies to be difficult to distinguish, theoretical reasons and theoretical strategies were connected in the working definitions.

Initially inspecting the interviews, the working definitions served as a guide to identify relevant text passages, and each interview was individually considered. The text passages identified were documented according to knowledge type and with a reference to strategies and, or motives, as well as a brief

[6] The survey included people who influenced on career development. For this purpose, the interviewees were given an empty numbered list, and whenever they thought of certain people during a career phase, they were asked to write them down on the list in front of them. Furthermore, when the interviewees noted down a person, they were asked to tell why this person was important to them and what role they had played in the career phase addressed. To do this, they were always asked to state the (newly) noted number aloud so that the persons named in the interviews could later be linked to the questionnaire via the numbers to the quoted statements. A detailed description of the data collection can be found in Hennig & Federmann (2018).

elucidation of the passage contents and network members mentioned. These passages were then discussed in our research group roundtable with a focus on our joint understanding of the conceptualities and resulting working definitions.

Second, the interview segments were individually reviewed about the following questions: What are the motives guiding actors in acquiring knowledge? What are the strategies they apply to achieve their goals?; and How are the strategies and motives to be seen in the light of relationships? Reviewing the interview passages resulted in a fully differentiated set of categories which was divided into strategies and motives. Following the documentary method, (Mannheim 1964, quoted by Asbrand 2011, zitiert nach Asbrand Jahr) the initially general distinction between strategies and[7] motives was further refined and complemented by inspecting the material and working out, particularly succinct aspects.

We differentiated between main motives, general reasons, and knowledge regarding field-specific issues. The main motives related to field-specific positionings or becoming acquainted with field-specific intricacies. These motives were not only repeatedly identified in individual text passages, but in part, ran through entire interviews. In turn, general motives rather reflected the interviewees' general objectives, while various field-specific practices were addressed in terms of knowledge regarding field-specific issues. The strategies were categorized in a similar fashion, and a distinction was made between general and field-specific strategies. About the latter, a focus was on the knowledge strategies applied within the respondents' respective academic subjects. Thus, the multifaceted categorization of interview contents replaced the preceding general allocation of individual passages to strategies and motives.[8]

Third, in examining the developed analytical draft of categories, the knowledge types, strategies, and motives becoming visible in the selected interview passages were linked to the creation, adaptation, and transfer of knowledge, as described in the theoretical section of this article.

We allocated the interview passages that illustrated specific knowledge types (implicit or explicit) to knowledge creation. By contrast, knowledge adaptation was seen to describe the appropriation of tacit knowledge, which comprised various forms – knowledge regarding field-specific issues, including expertise of how research proposals are written, which quality criteria come to apply, how groups organize themselves, how research topics are identified, how staffing is carried out, and the role of dealing with and the proximity to others in these processes.

"Transfer of knowledge" combines various strategies and motives that cannot be clearly distinguished from one another. Rather, these strategies and reasons overlap and therefore are meaningfully merged. Explanations were only found implicitly in the subjects' statements when they reflected upon the backgrounds of specific actions or described goals, such as in the following passage dealing with the objective of earning a doctorate:

> "Do a PhD, of course, right? So, do a Ph.D. Then I thought, 'Okay, how will I going to do that now? What's an interesting topic?' I put out my feelers to place 2 and got in touch with a professor, number four now, and also worked with her for a year, and then, sort of, to do my Ph.D. with her." (Interview 3, lines 91-95; own translation)

First, we see here how the interviewee described that her motive for earning her doctorate had been based on the strategy to acquire the knowledge necessary to this end. The strategy underlying this motive involved in acquiring field-specific knowledge regarding relevant actors and topics. Another strategy was subsequently applied to establish contact with such an actor and work on-site to collect field- and topic-specific experience. Thus, this individual motive was based on various strategies structured in tiers. In this way, each passage in the interviews was reviewed, and descriptions of specific actions were inspected as to the motives or objectives outlined for the applied actions. The active actions were finally labeled as strategies applied to implement particular motives. After this step, the following motives underlying knowledge transfer were elaborated:

- To acquire tacit knowledge
- To deal with competitors (minimize competition)
- To impart knowledge (from higher to lower ranks)
- To collect (field-specific) experience

In turn, these motives were associated with strategies with which the transmission of implicit knowledge was stimulated and implemented.

The strategies underlying the motive "to acquire tacit knowledge" described actors' active action to accomplish this goal and were summarized as follows:

- To seek personal proximity to superiors/lecturers and mingle with professional and personal contacts

[7] The documentary method is a procedure of reconstructive social research and goes back to Karl Mannheim (1964) and asks how social reality is produced.
The research with the documentary method aims to see the social world from the perspective of the actors. Thereby, the analysis of the practical knowledge of action is the central object of the reconstructions.

[8] We used MAXQDA 2022 (VERBI Software 2021) for our categorizations.

- To gather one's own experience by means of autonomy, one's own projects, and learning by doing
- To engage in exchange among peers
- To observe/imitate
- To claim answers to questions, to ask for advice.

"To hide knowledge" and "prosocial and pro-self motives" as strategies were seen to be associated with the motive "to deal with competitors". In contrast, the motive "to impart knowledge" described the passive receipt of knowledge. Without much action on their part, actors receive knowledge from other actors. These are strategies used by different actors to support the given respondent. Strategies associated with the motive "to impart knowledge" include "to ask for advice" (referring to the transmission of experience-based knowledge, mostly from superiors to subordinates), "to take along to conferences", and "to involve in research projects". The strategies applied to implement the motive "to gather (subject-specific) experience" were "to write to relevant people", "exam strategies and colloquia", and "test publications".

Habitus was seen to play a rather higher-level role in the analysis and proved to be particularly visible in interview passages that described sympathies.

IV. Motives and Strategies in the University Context

In the following section, the motives and associated strategies will be presented with excerpts from the scientific material and interrelated to the theory.

a) Strategies concerning the motive "to acquire tacit knowledge"

First, implicit knowledge and tacit knowledge were seen to commonly constitute field-specific knowledge which can only be acquired in the respective scientific field[9].

1. One strategy in this context was the search for "personal proximity to superiors/lecturers". As shown in the following interview passage, professional and personal contacts were frequently mingled:

> "I have to say, I personally was also very naïve in going up to the matter. [...] So, I had a BREAKING experience, if you will, because I thought, I was a straight-A student [...] I thought, 'Yes, that's how it's going to stay' (laughs). And then I suddenly noticed that, first, nobody's waiting for me and, second, uhm, the people, suddenly everything was about things that were COMPLETELY different from what I thought everything was about all along. So, there was no such thing as the qualifications that I thought were important, they were suddenly COMPLETELY unimportant. By contrast, what played a role was, uhm, how you, how close you are to people like researcher X who now had a significant impact [...] The game just went like I have to get a lot closer to this person intellectually, methodically, but also socially." (Interview 2, lines 130-141; own translation)

This passage illustrates the process of disillusionment in a respondent who believed in the merit principle and realized that, in her scientific field, it is important to effect performance, but above all, to personally become visible by bringing oneself in the proximity of decision- makers. However, it is less personal closeness to such decision-makers, but rather similar theoretical positions, methodical approaches, and social attitudes to be signaled. The assumption was that orientation towards, and imitation of the decision-makers' scientific habitus is more promising than merely providing evidence of scientific qualifications. In other words, the example postulates that proximity to certain individuals is significant in generating field-specific knowledge, which can be a condition for strategic knowledge practices.

Proximity to individual people plays an important role in theory. For instance, knowledge-related networks have been seen to be positively affected by strong ties (*Phelps et al., 2012, p. 1124*). In the example above, Ego profited from being close to her superior, both on a personal and an intellectual level, which was associated with observing and imitating the professorial habitus. However, it should be noted that proximity to other people and the related mingling of personal and professional contacts are not to be understood as exclusively vertical, but rather that it is also implemented horizontally in terms of colleagues, as the following interview passage shows:

> "I once believed that, but it proved to be the wrong conclusion or too one-sided, because it was so easy, so simple, well, it wasn't like THAT either. There are OTHER possibilities, too [...] Anyway, the moment I, when you always look up, but of course you also have to look horizontally, right?" (Interview 2, lines 142-144; own translation)

2. This leads us to the next strategy, "exchange among equals", in which tacit knowledge is generated in study or work groups.

> "Well, I suddenly had access to BOOKS, and we read Foucault and all sorts of stuff. [...] We went to the bookshop regularly and just bought books and that was our studying, right? Studying was not about attending seminars, but I did that along the way [...] So I additionally studied what I thought was right and important. But that was also very coincidental, and well, I got to know people while studying who supported me. So, [...] there were always WGs, that is,

[9] The concept traces back to Bourdieu. "Social fields develop and exist whenever people driven by common interests agree on rules of the game, along the lines of which they play for and, or fight over valuable goods and, or capital [...] Social fields are the areas in which these concrete situations of exchange take place: Here, people as interested parties get together to apply their capital in the best possible way and to achieve the best possible relationships" (Hennig & Kohl, 2012, p. 25; own translation). The field concept implies a space of practice in which actors are involved in interactive relationships (cf. Bourdieu, 1996).

work groups that talked through the stuff. So, it was like studying alongside studying, if you will." (Interview 2, lines 28-40; own translation)

In exchange among equals – in our case, organizing study groups – new knowledge is generated jointly and exchanged. As people voluntarily and spontaneously engage positively with others, they react with non-specified reciprocal behavior. As described by Blau (1968), exchange among peers is based on positive relationships guided by the norms of reciprocity and expectations regarding trust, honesty, and mutual aid, thus showing prosocial characteristics (*Blau, 1968; Connelly et al., 2012, p. 68; cf. Blau, 1964; Buller & Burgoon, 1996*). This process does not only include exchange, as resources are also bundled and shared in order to establish new knowledge stocks. Moreover, exchange among peers as organized in study groups also yields information and results in the adaptation of implicit knowledge about field-specific strategies of positioning within knowledge networks.

"[...] but by my being able to participate in this [...] circle, I got acquainted with other things that became important to me [...] not only intellectually, but also how you bring yourself into the game in the first place. That was the issue. If you're a Ph.D. student, you have to see to it that you get into the right, that you press every button to gather more knowledge, whether you have a chance at all, how to apply further, where you can land IN THE FIRST PLACE, which other people could be interesting, yes." (Interview 2, lines 119 -125; own translation)

Positioning within a network, in particular, is crucial to one's courses of action, assessment of given action situations, as well as interests and resource allocations, as the structural network perspective emphasizes.

1. "Own experience": Autonomy, focus on one's projects, and learning by doing are important strategies for gaining tacit knowledge.

"So number 5 came into play. A colleague, whom I had known for some time, was studying with me at about the same time [...] but then a great opportunity arose because we had an idea together [...] And then we had a project idea together and did the project together. [...] uhm, that somehow got quite a lot of media attention, this project. [...] We were somehow quite present in all kinds of media [...] with our, uhm, with our project and, uhm, we both took something into our own hands for the first time without our boss, and I think we benefited from each other enormously. Because as a young scientist, you're relatively used to somehow fulfilling tasks that you're given and somehow doing projects that you have to participate in, but you're actually told what to do, and that was different, because we were, on an equal level, if you can put it that way, because we had an idea together and then, yes, for the first time we did something on our own, and then we did something right away that was also connected with incredible risk." (Interview 12, lines 142-169; own translation)

Here, Ego and Alter were able to collect their own experiences during their time as young scientists, which also included the danger of failure. In doing so, they generated implicit knowledge, since they could not fall back on any research experience of their own, as emphasized in this passage.

2. "Observation/imitation" is one of the purest forms of implicit knowledge transfer (*see Halder 2019*). In the example below, it becomes clear that considering one's autonomy, one weighs up which of the observed methods seems to make the most sense. The focus is on classifying the information. The associated strategy is to obtain ideas for one's actions by observing others.

"So I didn't see it in the sense that if he advises me to do it, then I should do it, but I think it's always good to know the ideas other people have and to be able to compare and classify them somehow, whether they're crazy or normal or whatever." (Interview 1, lines 209-212; own translation)

Emphasizing that tacit knowledge in the form of expert knowledge relies on experience, Kind & Hilber (2006) described expert knowledge as a collection of skills such as "grasping the situation, prudence, skill, insight, and situational judgment" (Combe & Kolbe, 2008, p. 870, quoted by Halder, 2019, p. 53; own translation).

Another example illustrates how knowledge about conducting and giving lectures is acquired through observation and, to some extent, imitation. Nevertheless, emphasis is placed on independence by using newer methods to convey the contents of the lecture, which enable the students to distinguish themselves from their superiors.

"I think I had already oriented myself a bit towards number 4, because, uhm, I already somehow found that good, so he was able to talk so freely, and that was all quite entertaining, uhm, I then of course, also tried, uhm, but it wasn't that I somehow asked 'So how should I do that?' or 'Can you give me your lecture?' That didn't work because he still held his lecture with slides, and of course, I didn't want to show up with slides, but rather do it as a PowerPoint." (Interview 12, lines 520-526; own translation)

In this context, Halder (2019) outlined that superiors possess expert knowledge largely based on experience. This experiential knowledge is usually implicit and is transferred to subsequent generations by imitation. In our example, the supervisor gained experience in adequately designing and giving lectures by practicing lecturing and teaching for many years. Younger lecturers adapt such useful knowledge in a slightly modified form through observation and imitation.

3. "To claim answers to questions / ask for advice"

Another strategy to obtain tacit knowledge is "to claim answers to questions" or "to ask for advice". The following passage describes a strategy to gain advice from supervisors and other doctoral students.

"[I did it myself - I did it - I decided on it myself]. I mean, I told them afterward, and I told them that, I mean, you also

> speak so openly at work group parties or otherwise, or you get advice, right? The other is Person 7 (writes). And he would tell you afterward: 'Don't do that' or 'that's good, just do that' or 'I'd pursue that'. It's not like you just live there without communicating, it was just a group, my boss must have had a total of 150 doctoral students, that's just kind of a network, isn't it?" (Interview 8, lines 446-452; own translation)

The example we cited from interview 8 emphasizes that advice is taken from supervisors as well as from other doctoral students. This takes place in both horizontal and vertical communication. Preference is given to semi-private contexts, such as work circle parties or informal colleague conversations g. This strategy alings with the findings mentioned above published by Kind & Hilber (2006), who, in addition to imitation, defined active requesting of advice or questions as a concrete method of implicit knowledge transfer.

Even if the strategies that serve to generate tacit knowledge were initially considered separately from one another, they also were jointly applied in many text passages or were mixed, as the following example illustrates:

> "[...] I remember a workshop on the weekend with a woman who gave us career advice, so to speak. So there was, so to speak, I still remember, 'What do we actually want to achieve someday?', so, for all I know, privately and also professionally, 'Where do we want to go?', and so on. That was quite a good thing. We didn't have that, so to speak, in the Ph.D. colloquia in the narrower sense, but we did it with, so we somehow organized it ourselves, so to speak, with these six women, so to speak." (Interview 3, lines 175-180; own translation)

Here, an exchange about future goals initially took place among equals, which led to independent workshops and colloquia being organized – in this case, among female students. At the same time, however, it was emphasized that advice is gained from experts to participate in the career experiences of other women. Here, three strategies were mixed, namely exchange among equals, learning by doing, and seeking advice from experts.

The given examples illustrate that the creation of knowledge is closely linked to the respective field in which such knowledge is relevant. While the motive to gain tacit knowledge seems to be field-unspecific at first, the strategies to implement this motive depend on the structure and the framework conditions of the respective field. In a hierarchical system, such as the university, it is important to be familiar with the field-specific rules to participate in the game for positions, power, and resources (*cf. Bourdieu, 1992*).

Here, the strategies essentially serve to reproduce the system and are primarily based on career expectations (*cf. Bourdieu, 1988*). The interview passage on the strategy of "seeking personal proximity to supervisors/instructors" illustrates very well the "illusio" (*cf. Balösius, 2011, p. 100*) of the scientific field. The illusio in fields means that unknowing participants or, in our case, young scientists are under the deception that the university field is only about the field interest itself and that "awarded certificates and titles standardize the chances of access [...] and guarantee corresponding chances of employment" (Barlösius, 2011, p. 100; own translation). In our example, the issue is a promising placement for further career. The deception consists in the belief that the positions in the scientific field are assigned "solely based on scientific excellence, based on unconditional dedication to scientific knowledge, not based on personal gain" (Barlösius, 2011, p. 100f; own translation). This conceals that in science, the struggles for power and position also co-determine scientific careers (*cf. Barlösisus, 2011, p. 100ff.*). During such careers, and through various educational institutions, a habitual adjustment is necessary to complete these stages successfully (*cf. Barlösius, 2011*). Each change of field is connected with "[...] habitual transformations, which are reflected in patterns of perception, evaluation, and thinking, as well as in forms of practice, without, however, fundamentally changing them" (*Barlösius, 2011, p. 90; own translation*). This is also shown in the examples given here. Thus, in observation/imitation, forms of practice or ideas are evaluated and adapted by one's habitus without fundamentally changing them. On this basis, the social practices within the field are generated, which maintain the field's existence and contribute to the reproduction of the scientific system. This process requires implicit knowledge about the rules and experiences in the respective field, as our examples show.

b) Strategies concerning the motive "to deal with competitors"

This motive can be associated with the strategy "to hide knowledge" as well as "prosocial and pro-self motives".

In research, group information exchange is regarded as a cooperative process (*cf. De Dreu et al., 2008*). But the struggle for positioning in the academic field simultaneously leads to competitive behavior among the actors involved, since in a hierarchical system such as the university, successful and adequate positioning becomes increasingly difficult with increasing qualification. Thus, the following example shows a pro-self strategy that results from the motive to minimize dealing with competitors.

1. "Pro-self"

In the following interview passage, competition in the academic world explains the pro-self motive. The pro-self motive is based on a lack of professorships in Germany.

> "It was a bit more competition-oriented and not nearly as cozy, as you would say in new German, uhm, as previously. That was the first time I really experienced what competition is, not cooperation [...] we all applied at the same time for the 20 professorships that became vacant in Germany." (Interview 11, lines 297-304; own translation)

In this context, we identify a structurally conditioned strategy, which does not arise from an intrinsic motivation of benefit.

2. "To hide knowledge."

Another strategy for dealing with competition is "to hide knowledge". The following passage is narrated from the perspective of an individual from whom information was hidden. The hiding consisted of deliberately not communicating information so as not to be suspected of passing on confidential information.

> "Uhm, yes, well, I have, uhm, I hadn't even received an application from him to read, uhm, in preparation. I know that at some point he gave me, but it wasn't no, in another context, I once got to see an application from an established colleague, but that was later, but not in connection with an application. But that is also sometimes related to the fact that I've never experienced that here in the company, and that's also related to the functions that one or the other colleague holds anyway, so that you don't want to blame yourself because you deliver so many expert opinions yourself, to pass on information accordingly. I later got information sometimes. [...] I never got information in advance. But there are always colleagues in chemistry who don't do that, right? And, uhm, there may be cases, but then these are often very personal, close relationships between a, uhm, doctoral supervisor and a, uhm, well, or a mentor in the case and a junior scientist and from dependencies are also often the result, right?" (Interview 4, lines 149-164; own translation)

The strategy of "hiding knowledge" can be related to the theory of Connelly et al. (2012). As mentioned above, three strategies of knowledge hiding were identified: 1. to pretend to be "dumb" and ignorant; 2. to pass on false information; and 3. rationalized hiding, finding a reason for not having passed on knowledge. In our example, however, there was no clear strategy that fitted the ones mentioned in the theory. In interview 4, Ego simply stated that the information was not shared in advance. In some cases, it was passed on afterward. It is impossible to speak of deliberate deception through false information or playing dumb. The most likely explanation would be rationalized hiding since the information was passed on afterward anyway (*see Connelly et al., 2012*). Noteworthy in this context is Ego's statement, according to which information transfer is a) linked to close personal relationships, and b) linked to the position of the person who passes on the knowledge (vertically), so that dependency relationships arise between superiors and junior scientists. Consequently, it can be stated that the strategy of hiding knowledge seems to be related to the strategy of mingling professional and personal contacts.

3. "Prosocial"

The prosocial strategy is also a strategy to deal with competition. Prosocial strategies play a significant role in scientific material. This is particularly evident in the context of gender and the goal of being successful. The gendered motive as a prosocial strategy is apparent in the following interview passage.

> "[That builds up] that builds up there, of course, when two women are then together, who then, so we never wanted to prove that to the men negatively, that's not what it was about. But maybe rather prove to ourselves that we can do it, right? Uhm, and that, I believe, was a vital decision for us." (Interview 9, lines 63-67; own translation)

In this case, cooperation eclipsed competition. One allies to prove it to oneself. The underlying motive was to minimize competition, while the associated strategy was to help prosocially and join forces.

The following example from interview 12 reinforces the fact that collaboration displaces competition. The prosocial strategy to minimize competition is to publish together and carry out joint projects.

> "Yes, yes. Today, he's a professor at Location 3, and I think we helped each other a lot in the further steps of our careers. Well, we did various studies, various books together, various papers, our first publications in very prominent American journals, we actually did everything together and, uhm, that was alright, so we were really, now we're, so we're still good friends, but of course, we don't see each other very often, because we're at different locations now, but so, uhm, let's say, so that was 2002, so at least until 2010, we really, uhm, did incredibly much together." (Interview 12, lines 187-204; own translation)

According to Dreu et al. (2008) as Steinel et al. (2010), prosocial strategies have to be considered in a differentiated way with regard to the exchange of information. Depending on the respective motivation, strategic decisions are made as to whether and how knowledge is shared. In the passage from interview 12, Ego and Alter supported each other on their career paths by publishing together and conducting several research projects until they reached their goals of obtaining professorships. In the process, the collaboration led to friendship. This blending of professional and personal contacts turn, strengthened the relationship (*cf. Phelps et al., 2012, p. 1124*). Here, consequently, the two strategies are connected and cannot be separated.

Another structural and habitual aspect of the prosocial strategy – the gender effect – is seen in interview 9. The development of the prosocial strategy based on gender sameness is attributed to the prevailing extent of gender inequality in the scientific community. Thus, the two women mentioned above motivated and helped each other to succeed in a male-dominated field. In this context, Engler (2000) described the professorial position as being associated with the

image of an omniscient genius and as being denied to women. As the latter are excluded from the personality construction that creates the image of the professor in the first place (*Engler, 2000, p. 139f.*), they are not considered as legitimate actors in the context of knowledge production (*Engler, 2000, pp. 143-145*).

Another aspect of the gender effect can be reduced to a different gender-specific habitus, which causes another way of dealing with competition. For example, the goal of the two women in interview 9 was not to enter into direct conflict with men but to prove to themselves that they could hold their own in such a male-dominated field just as well as their male colleagues. This approach may succeed with the prosocial strategy. However, it can also be inferred from the formulation that male colleagues do not shy away from the competition in the field. All in all, the inequality-forming structures described are seen as the motivating factors from which the prosocial strategy arises.

c) Strategies concerning the motive "to impart knowledge"

Related strategies for the motive "to impart knowledge" include "to give advice", "to take along to conferences", and "to involve in research projects".

1. "To give advice"

Another strategy for dealing with tacit knowledge can be the assistance of superiors (cf. Shah et al., 2018). Applying such a strategy, exclusive knowledge may be gained, and advantages provided to the members of a network. In the academic field, for example, this includes passing on knowledge to its junior scientists, as the following interview passage expresses:

> "I ALREADY experienced career advancement, but less explicitly, less in terms of 'you have to do this and that'. Uhm, that was ALSO, so I was then NATURALLY advised 'You have to make contacts and you have to hold, uhm, lectures here and there, and that's whom you have to turn to, and that's where you have to present', and of course I was also let forward, so I was also allowed to do the whole thing, right? So, uhm, there was this supervisor, also very, uhm, relaxed and had little, uhm, for himself so want, but also passed everything on to me, right? I was allowed to do everything. That was certainly a career advancement in my mind. And, of course, also the clues on where to go, where to show yourself. But there was also a lot of implicit career advancement, in that you have this mixture of friendship networks and professional networks that somehow worked, so that these boundaries weren't evident in some cases." (Interview 2, lines 390-399; own translation)

Here, the form of knowledge transfer refers to the giving of advice, which is related to the formation of networks. The interviewee also associated with the resulting social relationship with her supervisor and colleagues. On the one hand, knowledge is passed on by giving advice, and on the other hand, a friendship network is created, which is based on a prosocial motive.

Other forms of knowledge acquisition include encouraging young scientists to be independent and to take care of their projects, and not work too closely on their superiors' topics. This is described in the following interview passage:

> "It doesn't depend on the fact that he selects a person now, but, uhm, the selection takes place because this person unambiguously solicits, uhm, funds, for himself in the initial phase, over longer periods also and for the first coworkers anyway, actually throughout. And, uhm, that, Uhm, leads to the fact that you speak about it as to what topics you want to go to, how you will orient yourself. At that time, completely clearly, the default popped up, uhm, to make, uhm, to HAVE to do something completely different, because he had already at that time, uhm, experiences, uhm, had experienced that there can be difficulties, if, uhm, the new generation sticks to their research areas too narrowly. Yes, that was unambiguous at that time, and that doesn't mean that my doctoral supervisor was, uhm, a stickler for principles and that, uhm, he kept on like that for over twenty years of promoting young researchers (laughs)." (Interview 4: lines 84-93; own translation)

The motive on the part of the supervisor to promote junior staff here led to the strategy of motivating the junior scientist to acquire money to finance their position or future staff positions. The motive "to give advice" cannot be easily separated from the prosocial and pro-self motives. Prosocial motives are based on a willingness to pass on one's knowledge and be involved in advancing young scientists' careers along with them. Pro-self motives serve to avoid competition within one's ranks, as described here by the compulsion to focus on one's topic, but also the acquisition of additional staff positions.

2. "To take along to conferences"

The strategy of including young scientists at conferences serves both to introduce them to the scientific community and to present tand position them in the networks.

> "And of course, those were very, very important connections, because we attended all the conferences, and the, let's say, older woman professors supported the younger, sort of, junior scientists and we were there, sort of, together at the conferences and that was since, let's say, the early 90s, when we were, so to speak, in THOSE circles." (Interview 3: lines 199-203; own translation).

Here, knowledge was transferred vertically from top to bottom and served to promote young researchers. The aim was to create a platform for exchange and at the same time to give young scientists the opportunity to get in touch with other actors in the field. The following passage illustrates this particularly well.

> "He said, just take a look at what you want. He also helped me in a certain way, because if you want to get

scholarships, you must have some people for external references, and then he told me, 'Well, there's a conference right here. I'll just show you two or three people, talk to them, and explain to them what you want and then make sure that you get an expert opinion from them. And that was, of course, the 'watch' variant, so let's say, 'I'll help you, but then you have to see to it that you get ahead, because you can't always be carried through life'. And then you would talk to the people and, uhm, they would finally write you an expert opinion and it was obviously an expert opinion and not a bad one, because you got the scholarship." (Interview 8: lines 298-306; own translation)

In this case, individuals are taken to meetings to get in touch with others. The higher-ranking person determines the appropriate behavior for the situation by giving instructions or recommendations to approach the "right" people at conferences to build up the necessary social relationships for the further course of one's career.

This strategy can be correlated with field-specific positioning and learning of field-specific nuances. As described above, young scientists are introduced to the field by attending conferences to position themselves in the field and build up a network, as well as to acquire field-specific knowledge. This process has been referred to in terms of a causal chain, the origin of which lies in the participation in conferences and the effect of which ultimately leads to learning field-specific nuances and, thus, to a transfer of knowledge.

3. "Involvement in research projects"

Here, the planning and execution of research projects facilitate knowledge transfer through the assumption of one's own responsibility under the guidance of an experienced professor.

"So, I didn't have a lot of freedom at first, but I learned a lot because we were constantly doing research projects together, big research projects, surveys, content analyses, and I was pretty much solely responsible for realization. But you can't say that I had to do it alone. So, he told me how it works and how to do it, and we agreed, but I was able to do a lot of it on my own." (Interview 12: line 103-109; own translation)

The transfer of knowledge is vertical but is marked by a high degree of autonomy for the young scientist.

The motive of knowledge transfer in the university context is based on supervisors' various strategies, including giving advice, taking students to conferences, and involving them in research projects. It becomes apparent that the motive of knowledge sharing cannot be separated from other motives, such as prosocial or pro-self motives. Sharing knowledge and information is initially prosocial on the part of the supervisors, who may also benefit from the junior scientists' successful career paths, since it improves their reputation in the academic field, so knowledge sharing can also be based on pro-self motives. The same applies to the strategies of taking them along to conferences, where supervisors introduce their junior scientists to the circle of the academic field, and the latter learn field-specific nuances in the process as they are embedded in the academic network. Here, too, supervisors can benefit from the junior scientists if the last present and position themselves professionally at the conferences. This in turn, increases their standing in the academic field. In the strategy of involvement in research projects, junior scientists are introduced to the research field in thematic terms, while at the same time, work is taken off the shoulders of research management, and its workload is reduced. Again, pro-self and prosocial motives are mixed: the young junior researchers can contribute new ideas to the project and take over the tasks, which can be based on a pro-self motive, and at the same time, implicit knowledge is passed on or acquired, which suggests a prosocial motive. In addition, everyone also benefits from obtaining research funds or grants, which are often associated with research projects.

d) Strategies about the motive "to collect (field-specific) experience"

Three strategies were categorized under this motive. First, "to write to relevant people", followed by "exam strategies and colloquia", and finally "test publications".

1. "To Write to relevant people"

The following example is about soliciting funding for grants through work group leaders:

"[Well, uhm, as it was] always, uhm, always done at that time. You write to different, uhm, workgroup leaders, uhm, and of course, they pay attention to it, things have been published, courses quickly done and so on. And then, first, you only get a job promise, and then you must apply again for, uhm, the appropriate funds, uhm, for the postdoctoral fellowship. That was always predetermined, it only goes through scholarships, because scholarships are an award." (Interview 4: lines 122-127; own translation)

The strategy of "to writing to relevant people" illustrates professors' micropolitical decision-making power, whose degree of effectiveness can be seen here in the academic field. Hüthers and Krücken (2018: 168) addressed the influence that superiors in this field have on mid-level faculty, as they can decide on the use of financial resources. In our case, the job-seeking Ph.D. student wrote into many work group leaders. The job- and fund-raising activities described here are not to be understood solely as career-relevant contacting, but rather as knowledge practices in which the researcher gained important experience regarding the academic field. By dealing with the details of the individual procedures, she learned how to write to important people and institutions in her field. In addition, the previously acquired knowledge comes into play in cover letters. The persons to be contacted both emerged

"from the conversation with the [...] academic family" and were indirectly derived from "professional conversations" (Interview 4: 108, 116; own translation). "To Writing to relevant people" can therefore be understood as a strategy that requires specific information and which itself contributes to the accumulation of discipline-specific experiences.

This also applies to applications for professorships.

2. "Exam strategies and colloquia"

The following example shows how taking part in an appointment procedure for a professorship was used to acquire discipline-specific experiences:

> *"And I thought:* 'Well, it's quite a good opportunity, and number 5 and I, we went there together and said, 'So, we'll just apply here now, let's see what happens'; we were actually both invited to the audition and then neither of us made it, of course, because it was clear that someone else would get it and it was quite funny to see how it works. I think it was also quite helpful to simply see what kind of questions were asked, for example, in such conversations." (Interview 12: lines 543-550; own translation)

This interview passage shows how the two actors gained knowledge about the procedures of the selection process by applying. It should be noted that the two "applicants" planned and implemented their applications together. Knowledge was strategically collected by collaborating with two peers who took the initiative. Consequently, planning such an operation can also be seen as an "exchange among equals", which is preceded by the audit strategy. Like the strategy of "writing to relevant persons" mentioned above, the preceding exchange is the prerequisite for implementing further knowledge strategies. However, in this example, supervisors initially played a less important role, as the process was more generally seen as a test. Nevertheless, the role of participation in the appointment process was perceived as a "reference point for their actions" (*Hennig & Kohl, 2011, p. 43; own translation*) since the long-term aim was to obtain a professorship.

The motive is, therefore, primarily to gain discipline-specific experience in appointment procedures to be more successful in subsequent applications for professorships. The following section also describes an examination strategy for such practices, in which the relationship with the supervisor was more important:

> "I gave the presentation in the group for rehearsal, but it wasn't quite ready then. HOW to apply or, well, I assume that she had looked at the application when I sent it in. I, don't know, but I would think that's how she answered questions from the commission chairman. But I know that, uhm, at least one other person had applied for the job, which I'm sure was also very strongly considered, where she had a similar relationship to him. So that's now, I can't imagine she made a CLEAR statement, so to speak, about how the decision should be made." (Interview 1: lines 302-309; own translation)

In this case, the supervisor was involved in the rehearsal presentation and gave the applicant tips on "HOW to apply". A hierarchical relationship is expressed that changes the meaning of the exchange. It is not only important what is practiced, but also who is involved in the exercise and provides advice for the actual exam. Since it was supposed that the supervisor may have an influence on the outcome, the knowledge exchanged was precious. However, the applicant put this effect into perspective by pointing out that another applicant was similarly important to the supervisor. Although the strategy of the rehearsal test fulfilled the goal of gaining exclusive knowledge, the proximity of the other applicant to the supervisor somewhat weakened the advantageous character of this knowledge in the competitive relationship. The difference to the previous strategy is the exchange with a person of higher rank. While the two applicants from the first example gained knowledge from the real procedure, the examination knowledge in the second example developed with a sample lecture and the superior's hints. The two examination strategies in the examples reflect two different types of knowledge acquisition, which can be distinguished: Collecting (subject-specific) knowledge both through one's initiative and through exchange with one's supervisor.

3. "Test publications"

The final strategy we identified was the possibility of "test publications", which will be illustrated with a passage from Interview 11.

> "My supervisor back then used to proofread it when I said, 'Gee, can you look over it again? Does it make sense?' in the first journal publications. He said, 'Yes, sure'; took the time, really (laughs) dissected it for me, so meticulously, that I am grateful today, it was good, uhm, and partly [...] So it was more my urge and, uhm, when I had that too, he said, 'Well, I'll take a look at it. If you're already writing it, we'll get it out reasonably." (Interview 11: lines 207-223; own translation)

The cited passage exemplifies the important role the production of "research papers" (cf. Phelps et al., 2012, p. 1119) plays in collecting subject-specific experience. The interviewee wrote a text, submitted it to the supervisor for proofreading, and through the feedback received, gained knowledge about scientific standards that would be implemented in future papers. Thus, not only are independently written scientific papers relevant in collecting subject-specific knowledge, but above all, the dialogue with experienced scientists. Here, correcting the manuscript was not exclusively author's interest, but was seen by the supervisor as a process in which the qualitative demand on the paper is expressed. It becomes clear that the supervisor had an interest in the paper becoming "reasonably" submitted and saw it as the joint task to fulfill the scientific quality criteria by using a mutual feedback process. From this, it can be inferred that proofreading manuscripts for publication is to be seen as an exchange in which

scientific standards are to be met and learned by those being evaluated.

The interview excerpts provided in this section revealed various strategies for collecting subject-specific experience. A prerequisite for this process, however, is active participation in the respective scientific field. For example, writing cover letters and resulting experiences about application and funding practices require knowledge concerning relevant people or names (explicit field knowledge). In addition, strategies in gaining field-specific experience may be related in their effectiveness to one's relationship with other actors. In the relationship with superiors, tacit knowledge is exchanged through trial presentations and feedback on scientific papers, which can be particularly benefit to actors for the reasons mentioned above. However, knowledge sharing does not only take place with superiors, but also in work practice and knowledge strategy planning with equals who share similar interests.

V. Conclusion

The aim of this article was to explore when and how both strategic motives and internal knowledge structures influence the creation and transfer of knowledge in the university context. The analysis shows that motives are closely related to actors' strategies. The examples underline that knowledge production is closely linked to the field in which this knowledge is relevant. In this context, the strategy for implementing a motive depend on the structure and framework of that field. It became clear that in a hierarchical system such as the university, it is important to know the field-specific rules to participate in the game for positions, power, and resources (cf. Bourdieu, 1992). In this context, the strategies essentially serve to reproduce the system.

Furthermore, it became apparent that unknowing participants – in our case, junior scientists – fall subject to the illusion that the university field is only about field interests. However, while acquiring knowledge about field rules, the subjects become quickly aware that struggles for power and position also play a role in determining scientific careers in academia (see also Barlösisus, 2011, p. 100ff.). Progressing through different educational institutions and facilities affects the habitus and leads to adaptations necessary to complete multiple career stages successfully.

This, in turn, means that the various changes between universities and institutions alter patterns of perception, evaluation, and thinking, in addition to the forms of practice through the respective field-specific experiences, as the examples show. Thus, in "observation/imitation" forms of practice or ideas are evaluated and adapted in accordance with one's own habitus without fundamentally changing them. In collecting field-specific knowledge, the habitus plays an implicit but important role as a "structuring" and "structured structure" (Bourdieu, 1990, p. 52). The habitus is structured by the collecting experience in the field, while the practices underlying these experiences in turn, have an impact on subsequent motives and strategies.

In the field of science, motives are primarily derived from the goal of gaining the best possible position, power, and resources in the field. For this purpose, it is necessary to obtain implicit knowledge about the rules of the game in the field, but also to minimize competition, acquire advice and support, and gain field-specific experience. These motives are implemented strategically, but how and in what way this is done is usually not a rational decision but rather depends on the actors' habitus. Thus, permanent competition can promote pro-self strategies to successfully achieve one's goals even if a prosocial strategy would be more rational since resources are combined here and one could reach the goal faster together.

Prosocial strategies are also found in the scientific domain due to prevailing gender inequality. This leads to women developing common strategies and pooling resources to improve their positions in the struggle to assert themselves in such a male-dominated field. Even though we are still at a relatively early stage of research, the potential of using in-depth qualitative interviews to trace actors' motives and strategies in the creation, transfer, and adaption of tacit knowledge in social relations is evident, as this not only captures the relationships between actors in the context of knowledge production but also serves to consider the structures and their effects.

Finally, we must point out some limitations of our study. First, we re-analyzed data that were collected retrospectively with a different objective. And second, the results of the eight interviews cannot be generalized. They give us only exemplary indications of motives and strategies about different forms of knowledge production.

Therefore, in the Future, research will need to identify on a larger scale the difference between motives and strategies in the knowledge production process in an attempt to develop a typology of which motives lead to which strategies in creating, transferring, and adapting tacit knowledge. Perhaps it would be possible to identify the necessary potential for improvement to eliminate the glass ceiling effects in science that make it difficult for women to move up the career path.

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For scanned images, the scanning resolution at final image size ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs): >350 dpi; figures containing both halftone and line images: >650 dpi.

Color charges: Authors are advised to pay the full cost for the reproduction of their color artwork. Hence, please note that if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a Color Work Agreement form before your paper can be published. Also, you can email your editor to remove the color fee after acceptance of the paper.

Tips for writing a good quality Social Science Research Paper

Techniques for writing a good quality homan social science research paper:

1. Choosing the topic: In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

2. Think like evaluators: If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

3. Ask your guides: If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

4. Use of computer is recommended: As you are doing research in the field of homan social science then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

5. Use the internet for help: An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.

6. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

7. Revise what you wrote: When you write anything, always read it, summarize it, and then finalize it.

8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.
Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

19. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

20. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

21. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

22. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

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Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.

Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."

Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.

Criterion for Grading a Research Paper (Compilation) by Global Journals

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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Global Journal of Human Social Science

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