

## **Is Introversion an Obstacle in Tacit Knowledge Sharing through Socialization?**

### **A Study on how Personality Traits Influence Knowledge Sharing Behavior**

**Abstract:** In today's knowledge-based economy, efficient management of an organization's intellectual capital is becoming increasingly important. As opposed to explicit knowledge, tacit knowledge is an organization's most vital knowledge, and this knowledge should be shared among co-workers in an efficient way. It is therefore crucial for managers to be aware of which factors have either a positive or negative impact on the sharing of tacit knowledge. Personality is a factor that influences tacit knowledge sharing. Tacit knowledge is best shared through practices that require social interaction. This paper investigates the relation between tacit knowledge sharing and introversion in particular. Introverts are perceived to be withdrawn, quiet, and to have poorer social skills than extraverts, and therefore might have an inhibiting effect on knowledge sharing. However, by examining existing literature, this paper shows that typical introverted personality traits serve as both motivators and obstacles in tacit knowledge sharing.

**About the Author:** Anne Karete N. Hvidsten is a 2016 candidate for the Library and Information Studies program at Dalhousie University. She completed her Bachelor of Arts with a major in Comparative Literature at the University of Oslo. Originally from Norway, she came to Canada to pursue her interest in Information and Knowledge Management. This paper was written for the course MGMT 5008 – Knowledge Management.

## Introduction

Tacit knowledge is a type of knowledge that is difficult to express through text or symbols, which makes it difficult to transfer from one individual to another. Tacit knowledge is difficult to codify because it is a type of knowledge that evolves over a period of time and is mostly based on the individual's own experiences (Becerra-Fernandez & Sabherwal, 2015). Examples of tacit knowledge include how to ride a bike, how to speak a language, or how to be a good leader. Such knowledge cannot be transferred to an individual solely through concise instructions; it requires immersion and long-time practice.

Tacit knowledge sharing has proved to constitute a crucial part of Knowledge Management (KM) processes in an organization. Tacit knowledge is also an organization's most vital knowledge and is best shared through socialization practices. It is therefore important to investigate what successful tacit knowledge sharing is, as well as what motivations, obstacles, encouragements, and other external and internal factors impact its sharing through socialization. One of the factors that influence tacit knowledge sharing is employees' personality traits. This paper focuses on the relationship between tacit knowledge sharing and individual characteristics.

The introverted and extraverted dimension of personality is to be found in most modern personality models (Johnson, Wiebe, Gold, Andreasen et al., 1999). Generally, introverts are known to have poorer social skills and prefer to work in solitude, as opposed to extraverts who are perceived as social and outgoing. Introversion might be a problem in tacit knowledge sharing since successful sharing of tacit knowledge through socialization presupposes being socially skilled, which includes the ability to speak in public, to keep up a conversation, and to participate in collaborative discussions. Based on the characteristics of introversion and the processes of tacit knowledge sharing, the main thesis statement in this paper is: *Introversion is an obstacle in effective sharing of tacit knowledge through socialization.*

There is not much literature that focuses specifically on the correlation between introversion and tacit knowledge sharing. By studying research on socio-psychological premises for knowledge sharing and synthesizing it with literature on introverted personality traits, it is possible to gain an understanding of how the introverted personality type affects tacit knowledge sharing. This method reveals that several typical introverted personality traits inhibit tacit knowledge sharing, but there is also a range of introverted personality traits that have an opposite affect and actually motivate and facilitate tacit knowledge sharing.

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## **Literature Review**

### **Knowledge Management and Knowledge Sharing**

The growth of a knowledge economy has made KM increasingly important (Hooff & de Ridder, 2004). Powell & Snellman (2004) define knowledge economy as the “production and services based on knowledge-intensive activities” (p. 199). Today's knowledge economy makes an organization's intellectual capital a vital economic asset as knowledge lays the basis for innovation (Beesley & Cooper, 2008; Chen, Huang, & Hsiao, 2010). There is still a lack of consensus when it comes to defining KM. Instead many definitions of KM exist side by side, as pointed out by Hussi (2004) and Plessis (2007). Plessis cites Gloet and Terziovski, who define KM as “the formalization of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value” (p. 21). The focus of this definition is the desired outcome of KM. A less objective-driven definition is presented by Darroch and McNaughton (2002), again in Plessis' words: “[KM] is a management function that creates or locates knowledge, manages the flow of knowledge and ensures that knowledge is used effectively and efficiently for the long-term benefit of the organization” (p. 21). Other authors, such as Parlbay and Taylor (2000), emphasize the link between KM and innovation by stating that KM “is about supporting innovation, the generation of new ideas and the exploitation of the organization's thinking power” (as cited in Plessis, 2007, p. 22). In summary, KM is defined in many different ways, depending on which aspect of KM that is in focus, whether it is the goal of KM, the process of KM, or the objectives of KM.

Knowledge sharing is the process of “transferring knowledge from one specific context to another” (Matzler, Renzl, Muller, Herting, & Mooradian, 2008, p. 303). Sharing of knowledge is an important part of KM since knowledge sharing strengthens an organization's intellectual capital, which further provides competitive advantage (Osterloh & Frey, 2000).

### **Personality Traits and Workplace Behavior**

The relation between personality traits and behavior in the workplace has been the topic of many studies. The Big Five personality traits include neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Big Five is a tool frequently used in studies on personalities and individual characteristics (Major, Turner, & Fletcher, 2006). Studies of these traits in work settings reveal that there is a correlation between personality traits and job performance. For example, Barrick & Mount (1991) found that conscientiousness in particular influences individuals' job performance.

Another known tool for studying personalities is the distinction between introversion and extraversion. For example, Jung, Lee, & Karsten (2012) found that there were differences between extraverts and introverts in idea generation performance in small groups.

Studies have revealed a relation between personality traits and knowledge sharing behavior: Lee & Al-Hawamdeh (2002) found that employees' communication style and motivation influenced their knowledge sharing behavior. Another example is Abzari, Shahin, & Abasaltian (2014) whose study results indicate that emotional and social intelligence have a significant impact on knowledge sharing behavior. The relation between knowledge sharing and personality traits will be discussed further in this paper.

### **What is Introversion?**

The distinction between extraversion and introversion represents a basic categorization of personality types, and are terms commonly used when we refer to an individual's personality characteristics. The distinction between extraversion and introversion was developed by the Swiss psychiatrist Carl Gustav Jung (Rzadkowska, 2015). Jung defines introversion and extraversion as two different attitudes of consciousness. An introverted person tends to focus on subjective factors, i.e. his or her internal world with his or her ideas, thoughts, and reflections. Differently, an extraverted person focuses more on objects and objective facts in the external world that surrounds him or her, and lets the consciousness be led by these factors (Jung, 1926). Although most people are not strictly introverted or extraverted but have both extraverted and introverted traits, people have a tendency to prefer either the outer or inner world (MBTI Today, n.d.). What he or she prefers denotes which personality type best characterizes this person.

What characterizes an introverted person further? The Merriam-Webster dictionary defines an introvert as "a shy person: a quiet person who does not find it easy to talk to other people" ("Introvert", n.d.a). In the Oxford English Dictionary the definition of introvert is "a person characterized by introversion; a withdrawn or reserved person" ("Introvert", n.d.b). Encyclopedia Britannica states that "the typical introvert is shy, contemplative, and reserved and tends to have difficulty adjusting to social situations" ("Introvert and extravert", n.d.). These definitions indicate that introverts are generally shy and reserved, and find social interaction difficult. Extraverts are characterized by opposite traits: they are outgoing, quick at making decisions, enjoy talking to other people, and prefer variation over predictability ("Extravert", n.d.; "Introvert and extravert", n.d.; Skre, 2014).

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Susan Cain, the author of the bestseller *Quiet: The power of introverts in a world that can't stop talking* (2012) defines introversion as “a preference for environments that are not overstimulating” (p. 12). Further she provides a list of traits that are typical for introverts. These traits are based on contemporary research on personality types. Cain states all introverts are not necessarily shy, but they are often perceived as quiet and soft-spoken. Since they are sensitive to overstimulation, introverts do not enjoy multitasking, but prefer working in solitude on one specific task in-depth. They also prefer to complete their work before presenting it to others. Introverts are also considered good listeners and prefer to express themselves through writing over verbal expression. This is why introverts enjoy lectures better than seminars, and one-on-one activities instead of group work (Cain, 2012).

In the psychology literature, other psychological terms are often used to denote introverted personality traits. From the Big Five personality traits, openness to experience, conscientiousness, and neuroticism are all closely related to introversion (Cain, 2012). Openness to experience entails being open-minded, curious both intellectually and artistically, and being able to come up with original ideas on a frequent basis. Conscientiousness involves taking control over one's impulses, which results in better concentration and ability to focus on one task at a time. Individuals with this trait are highly organized, arrive on time, and adhere to norms and rules. Neuroticism is often referred to as negative emotionality, meaning that individuals with this personality trait tend to experience negative emotions easily, such as being nervous, anxious, and depressed. Neuroticism also entails sensitivity to criticism (John, Neumann, & Soto, 2008).

### **Introverts at Work**

The introverted personality type manifests itself in work life as in all other aspects of life. Dunning (2001) states that introverts prefer a quiet work place that allows them to think and process information without disturbances. Extraverts, on the other hand, prefer to talk, act, and process information through verbal collaboration with others. Cain (2012) claims that in today's world extraverted personality traits are considered the ideal. The result is that the extravert's preferences in terms of work environment and practices are favored, these preferences being collaborative brainstorming, open office plans, an extensive amount of group work, and little time to work alone (Cain, 2012). Such practices presuppose that everyone involved are comfortable with lots of social interaction, can think out loud with ease, and are able to articulate ideas and speak without problems in front of a group of people. Considering the large amount of collaboration and team work in today's workplaces, the level of an employee's

contribution in a social work environment is crucial for the professional success of the employee. Possessing social skills and managing social interactions successfully at work is therefore an important skillset to have today.

This paper operates with Riggio's (1986) definition of the term "social skills", which entails a division into six basic skill dimensions. These dimensions are helpful in gaining a better understanding of what it means to be socially skilled. The first dimension is emotional expressivity, which refers to the ability of expressing emotions and attitudes nonverbally. The second dimension, emotional sensitivity, is the ability to receive and interpret another person's nonverbal communication. The third dimension is the ability to control one's own emotional expression and nonverbal communication – emotional control. The next dimension is called social expressivity and refers to being able to express oneself verbally and to carry engaging conversations with other people. Further, social sensitivity, entails the ability of interpreting other people's verbal communication, often meaning being attentive to other individuals. Lastly, the dimension social control refers to being self-aware and able to adjust one's behavior accordingly. In summary, socially skilled means being able to master all six dimensions; essentially having the ability to express and decode emotions and attitudes, both verbal and nonverbal. For example, a person who is very reserved would not express his or her emotions and attitudes in a clear manner, and thus cannot be considered socially skilled, according to the dimensions addressed by Riggio.

Research has shown that a typical introvert has poorer social skills than a typical extraverted person (Rosenthal & Lieberman, as cited in Pollet, Roberts, & Dunbar, 2011). Extraverts also have a larger network than introverts (Pollet, Roberts, & Dunbar, 2011), indicating that extraverts are better at social interaction with other people. In their study, Feiler and Kleinbaum (2015) found that social networks were dominated by extraverts, leading to what they call an "extraversion bias" of networks, since they found introverts to be underrepresented in social networks. Further, Zack Devora has created a networking guide for "people who hate networking", and mentions introverts as part of his target audience. The research findings and Devora's guidebook indicate that extraverts have better social skills and enjoy making new acquaintances more than introverts do.

Communication lays the basis for social interaction. Also the way extraverts and introverts communicate have been proved to be different from one another: Introverts need more time to reflect on what is being said in the conversation and to prepare what to say next. The result is that introverts' way of speaking is more thoughtful and precise, but less reactive as the time they need to reflect makes it difficult to keep up

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with the pace of the conversation (Heylighen & Dewaele, 2002). Heylighen & Dewaele's study also proved that when introverts found themselves in a stressful situation, they had even greater difficulty in making their speech fluent and concise. This finding corresponds with the results of Beukeboom, Tanis, and Vermeulen's more linguistic study of introverted and extraverted communication style (2012): introverts used language that was much more descriptive and concise. Extraverts, on the other hand, were driven by the constant stimulation of the conversation, and had a communication style characterized by spontaneity, quick responses, and few pauses, which, unlike introverts, make them able to keep up with the pace of the conversation (Heylighen, & Dewaele, 2002). Extraverts also tend to express themselves in more abstract and interpretative terms as opposed to introverts' concise and descriptive language (Beukeboom, Tanis, & Vermeulen, 2012).

In summary, the research findings show that introverts have poorer social and networking skills, and have more difficulty keeping up with the pace of conversations. These findings explain why introverts are less successful and more uncomfortable in today's common workplace scenarios like brainstorming, group work, and little time to work by themselves in peace and quiet. Dunning (2001) advises introverts to seek careers that allow them to take the time they need and to focus on one task in-depth in peace without being disturbed by co-workers. In case of group work, the groups should be as small as possible, ideally 2-3 persons. Arguably, the group-based workplace practices of today suit the extravert personality type much better, resulting in a domination of extraverts and less verbal contribution from introverts in the workplace.

### **Knowledge Sharing**

Knowledge sharing is the KM process through which knowledge is transferred and communicated to other people or teams and units of an organization (Becerra-Fernandez & Sabherwal, 2015; Ajith Kumar & Ganesh, 2009). The knowledge communicated is either tacit or explicit. Successful knowledge sharing leads to creation of new knowledge, also known as knowledge discovery (Hooff & de Ridder, 2004). Knowledge sharing constitutes an important part of KM as it allows for greater innovation of products and services, and enhances the performance level of an organization. Additionally, knowledge sharing is the nexus between knowledge discovery, knowledge capture, and knowledge application, i.e., without the knowledge sharing nexus, captured knowledge cannot be utilized in practice (Becerra-Fernandez & Sabherwal, 2015). As employees advance their skills and

competencies through sharing of knowledge, knowledge sharing lays the foundation for applying knowledge in action through decision-making (Matzler et al., 2008).

As mentioned, knowledge is either tacit or explicit. The difference between tacit and explicit knowledge lies within the manner of how the knowledge is articulated (Matzler et al., 2008). Explicit knowledge is knowledge that can easily be codified by words, numbers, symbols, and/or figures. Explicit knowledge is easy to translate into and share through these codifications. Tacit knowledge, however, is knowledge on a deeper level, such as instincts and insights, and cannot easily be codified (Becerra-Fernandez & Sabherwal, 2015). Tacit knowledge must be transferred through other means than codifications as it is experience-based and obtained through, for example, observations and interactions. Due to the more complex nature of tacit knowledge, it is considered difficult to share. However, tacit knowledge is also perhaps the most valuable knowledge an organization possesses (Kiku & Lori, 2009), and the majority of an organization's knowledge is precisely tacit, according to Matzler et al. (2008). Good management of tacit knowledge sharing is therefore important, and it is crucial for an organization to be aware of what the premises for successful sharing of tacit knowledge are.

### **Tacit Knowledge Sharing Through Socialization**

Because the nature of tacit knowledge is different from explicit knowledge, tacit knowledge must be shared through other means. Transferring tacit knowledge into explicit knowledge would result in loss of knowledge (Borges, 2012). Since tacit knowledge tends to reside inside people's heads rather than in documents and codifications, this type of knowledge is best shared through socialization, involving physical proximity and verbal communication (Nonaka & Konno, 1998). Socialization is a KM mechanism which, through joint activities, facilitates the flow of tacit knowledge between individuals. The synthesis of tacit knowledge that the sharing creates can, in many cases, lead to discovery of new knowledge (Becerra-Fernandez & Sabherwal, 2015).

Common tacit knowledge sharing practices that involve socialization are in-person communities of practice (CoP), networking, and in-person storytelling. A CoP is a self-selected community of individuals gathered across, for example, units, organizations, and stakeholders. A CoP is the same as knowledge networks (Becerra-Fernandez & Sabherwal, 2015), and is built around a common body of knowledge. It allows individuals to get together to discuss shared interests. The goal of a CoP is to enhance knowledge and learning among the community members and create value that will benefit everyone participating in the CoP (Allee, 2000). Although networking can

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seem similar to CoP as it is also self-selected, networking is more informal and is not as established as a CoP. The establishment of a CoP may arise from networking (Allee, 2000). For example, people attending a conference can network with each other and discover shared interests, and form a CoP where they can discuss further and share their knowledge. One can still maintain a network through occasional communication, but the premises of a network is less strict; the connections between people in a network are looser and may change based on the people's needs (Allee, 2000). In any case, networking has been proved to facilitate knowledge transfer and is therefore an important tacit knowledge sharing practice (Reagan & Mcevily, 2003). It is important to note that an individual can use several different networks and be a member of more than one CoP.

Further, storytelling is a KM mechanism for knowledge sharing and capture. Storytelling entails an individual sharing an experience in front of an audience. Storytelling is a valuable tacit knowledge sharing mechanism because a story provides context and details through narration. The episodic nature of stories makes knowledge shared through stories easier to remember, and thus allow the listeners to apply the knowledge as needed later (Becerra-Fernandez & Sabherwal, 2015). The three tacit knowledge sharing practices discussed above all involve social activities such as public speaking, conversations between individuals, and collaborative discussions.

A more infrastructural factor that lays the basis for tacit knowledge sharing at the workplace is open office plans. Open office plans have increased in popularity over the past two decades. In the 1970s, the average amount of space per employee was 500 square feet; in 2010 the average was 200 square feet (Miscovich as cited in Cain, 2012). As mentioned, for sharing tacit knowledge, physical proximity is crucial. An open office plan facilitates knowledge sharing by enabling colleagues to observe each other and demonstrate their knowledge. An open office plan is therefore considered a socialization mechanism in this paper.

## **The Impact of Socio-Psychological Factors and Personality Traits on Knowledge Sharing**

Now that it is established what tacit knowledge sharing entails, it is time to look at which socio-psychological factors and personality traits that either motivate or inhibit sharing of tacit knowledge. There are many different types of contextual factors that affect knowledge sharing, such as cognitive, administrative, social, and infrastructural, in addition to socio-psychological factors (Ajith Kumar & Ganesh, 2009). This shows that

KM systems and technology alone are not enough to ensure efficient knowledge sharing.

Socio-psychological factors pertain "to an individual's psyche that influence his behavior in social settings" (Ajith Kumar & Ganesh, 2009, p. 168). Knowledge sharing cannot be forced on employees from above, especially when it comes to tacit knowledge sharing, which is heavily dependent on social interaction and chemistry between individuals. Organizational culture and individual traits constitute important socio-psychological factors in knowledge sharing (Cabrera, Collins, & Salgado, 2006).

A correlation between personality and knowledge sharing that shows how personality influences knowledge sharing has been identified (Awad & Ghaziri as cited in Ismail & Yusof, 2011; Ismail & Yusof, 2010; Matzler et al., 2008). Personality types have a significant impact on the quality of knowledge sharing, meaning that whether the knowledge shared is reliable, timely, accurate, and relevant, depends on the personality of the individual who shares the knowledge (Ismail & Yusof, 2010). In Ismail & Yusof's study, personality proved to have a stronger impact on knowledge sharing quality than other crucial factors such as trust and awareness of the importance of KM.

In other studies, fear has shown to have a negative impact on knowledge contribution (Bordia, Irmer, & Abusah, 2006). Some employees might fear that their colleagues will ridicule or not appreciate their knowledge sharing contributions, resulting in reluctance to sharing knowledge. Such concerns are also known as evaluation apprehension. In several studies, trust has proved to be an important socio-psychological factor in knowledge sharing (Renzl, 2008; Ismail & Yusof, 2010; Peralta & Saldanha, 2014). If the level of interpersonal trust propensity is high, people are more likely to share knowledge with each other. The opposite of trust is a fear of being replaced or laid off. This "fear of losing one's unique value" (Renzl, 2008) decreases the level of trust propensity, and thus inhibits knowledge sharing.

Bock, Zmud, Kim, & Lee (2005) have identified two additional socio-psychological knowledge sharing factors: sense of self-worth and anticipated reciprocal relationships. Sense of self-worth entails whether or not an employee views his or her knowledge sharing contributions as valuable to the organization and colleagues. The more confident an employee is with his or her skills and competencies, the more likely the person is to share his or her knowledge with others. Reciprocal relationships are relationships between two individuals or two groups of people who have agreed on a mutual exchange of services. When the two parts of the relationship succeed in meeting each other's expectations they have agreed upon, knowledge sharing is

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nurtured. If one part continuously fails to fulfill the other part's expectations, knowledge sharing between the parts is less likely to occur. Loyalty can therefore be seen as a crucial factor in knowledge sharing.

Self-efficacy is a socio-psychological factor that motivates knowledge sharing (Cabrera, Collins, & Salgado, 2006). Similar to self-worth, self-efficacy is believing that one has the ability to accomplish certain tasks and tackle certain situations in a successful way. Individuals with a high level of self-efficacy are more likely to share their knowledge. Other more psychological than social factors that affect knowledge sharing are openness to experience and perceived support from co-workers and managers (Cabrera, Collins, & Salgado, 2006). Openness to experience has to do with an individual's "imaginability, curiosity, artistic sensitivity and originality, as opposed to conventionalism" (p. 248). Individuals who have an open personality are also inclined to share more knowledge. Finally, and not surprisingly, when employees feel that colleagues and supervisors support a certain behavior, the more likely it is that employees perform this behavior. A supportive team environment that applauds a knowledge sharing behavior is therefore an important socio-psychological factor that motivates knowledge sharing.

A study of motivation shows that different types of motivations apply to different types of knowledge (Osterloh & Frey, 2000). When an employee feels extrinsic motivation, the motivation comes from external factors such as monetary incentives. Intrinsic motivation is more an internal motivation. The motivation arises from the task itself and is not dependent on external incentives. Intrinsic motivation is closely linked to tacit knowledge sharing, as opposed to explicit knowledge sharing, meaning that employees must feel an intrinsic motivation in order to share their tacit knowledge successfully. This factor correlates with the fact that knowledge sharing cannot be forced upon employees. Socio-psychological factors, such as motivation, must lay the foundation for knowledge sharing.

### **Synthesis: Is Introversion an Obstacle in Tacit Knowledge Sharing Through Socialization?**

In the previous sections of this paper, we have seen how tacit knowledge sharing requires socialization and that introverts typically are less comfortable in social settings than extraverts. We have also seen how research confirms that socio-psychological factors, including personality traits, have a large impact on knowledge sharing as a KM practice, either positively or negatively. These facts lay the foundation for

analyzing how introversion in particular affects tacit knowledge sharing through socialization.

### **Introversion as a Negative Factor in Knowledge Sharing**

Many of the typical introverted traits have a negative impact on tacit knowledge sharing. Knowledge sharing through socialization is a lot about turning the focus towards the external world and other people. Introverts' preference for their internal world makes them unable to fully focus on what is going on around them. This is due to introverts' dislike of multitasking. In social settings one has to multitask by decoding social cues and keep up a conversation at the same time. A study by Rosenthal and Lieberman (2001) (also mentioned by Cain, 2012) revealed that extraverts performed better than introverts when it came to decoding nonverbal cues during social interactions. But introverts were the winners when it came to decoding social cues by listening to conversations on a tape recording. The study results prove that introverts perform better when they can focus on one task. Based on the study results, introverts might be an obstacle in tacit knowledge sharing since they lack the ability to focus on the knowledge *and* social aspect of knowledge sharing at the same time.

Being quiet, reserved, and withdrawn in a social setting does not benefit knowledge sharing through socialization, as socialization requires contributions from everyone in order to reach the full potential of socialization. Combined with the fact that introverts are less comfortable in social settings in the first place might further make introverts even more stressed and withdrawn when having to interact with a group of people. Their preference for expressing themselves in writing rather than verbally also has a negative effect on tacit knowledge sharing, as verbal communication lays the foundation for tacit knowledge sharing through socialization. The fact that introverts are good at expressing themselves through writing indicates that they may be particularly good at sharing explicit knowledge rather than tacit.

Evaluation apprehension is not a motivator for knowledge sharing. Neuroticism, which is a typical introverted trait, entails being sensitive to critique and evaluation from others. Introverted employees might therefore avoid contributing to the sharing of both tacit and explicit knowledge as they would not want to risk to be offended by criticism from co-workers. Not taking that risk inhibits knowledge sharing. Naturally, evaluation apprehension and fearing other people's judgement is a legitimate concern if the organizational culture is characterized by hostility and ridicule. In that case the culture needs to change.

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To have a sense of self-worth is another personality trait that motivates knowledge sharing. Awad & Ghaziri (as cited in Ismail & Yusof, 2010) state that people who are self-confident and feel secure about themselves and what they have to say are more likely to contribute to the sharing of knowledge than people who are introvert and "security conscious". Therefore, also in this case, introverts might be an obstacle in tacit knowledge sharing.

### **Introversion as a Positive Factor in Knowledge Sharing**

Not all aspects of introversion have a negative impact on knowledge sharing. There are several introverted personality traits that motivate tacit knowledge sharing and enhance social interaction. First, introverts are good at developing and maintaining emotionally close relationships with other people (Pollet, Roberts, & Dunbar, 2011). Extraverts have larger networks and more acquaintances, but their relationships to other individuals are looser and on a shallower level. Close emotional relationships are more likely to foster trust and loyalty – both of which have proved to be motivators for knowledge sharing. Information and knowledge shared between individuals in a close relationship is also more likely to be credible. A network built on strong relationships lays the foundation for frequent communication and voluntary and unconditional knowledge sharing, as opposed to a network that consists of weaker relationships (Pollet, Roberts, & Dunbar, 2011). Introverts' ability to establish and maintain close relationships therefore fosters tacit knowledge sharing.

Openness to experience is a frequently mentioned introverted personality trait when it comes to knowledge sharing. Openness is crucial in acquiring new knowledge and educational matters in general (Cabrera, Collins, & Salgado, 2006). In a study by Matzler et al. (2008) it turned out that individuals who possessed the three personality traits agreeableness, conscientiousness, and openness influenced knowledge sharing in a positive way as they were more engaged in sharing their knowledge. Introverts are therefore important knowledge sharing facilitators since both conscientiousness and openness to experience are typical introverted personality traits.

Openness is also the willingness "to learn something simply for the joy of learning" (John, Neumann, & Soto, 2008, p. 120), also known as intrinsic motivation. As mentioned, intrinsic motivation is important in tacit knowledge sharing. It is also found that high intrinsic motivation has a stronger influence on introverts than on extraverts, resulting in introverts being more engaged in knowledge sharing when intrinsic motivation is high (Poulsen, 2013). This might indicate that when introverts feel a strong inner motivation, they are able to speak up and communicate their knowledge more easily to others.

Good communication skills are crucial for successful sharing of knowledge (Ismail & Yusof, 2010). Some aspects of introverts' communication style have a positive effect on tacit knowledge sharing. First, introverts are known to be good listeners, which enables careful processing of new knowledge. Because of their ability to listen to others, introverts might possess a lot of tacit knowledge without giving the impression of being particularly knowledgeable, due to their reluctance to expressing their knowledge in social settings. Being a good listener combined with the fact that introverts have better long-term memory than extraverts (Heylighen & Dewaele, 2002) makes introverted employees important sources of tacit knowledge. Introverts' ability to listen carefully is acknowledged in Borges' study (2012), which showed that introverts did better in tacit knowledge sharing than their extraverted colleagues. Borges argues that listening to ideas enables them "to discuss them objectively and internalize them" (p. 101), whereas extraverts are more focused on driving the conversation rather than processing what is being said. Being able to listen carefully to other people makes people feel valued, and making co-workers feel valued will also have a motivating effect (Grant, Gino, & Hofmann, 2010). Because of these reasons, Borges consider introverts to be more effective in tacit knowledge sharing and acquisition than extraverts.

Extraverts have a fast-paced, interpretive, and abstract verbal communication style, as opposed to introverts who need more time to reflect on what to say, and speak in more concise and descriptive terms (Heylighen & Dewaele, 2002; Beukeboom, Tanis, & Vermeulen, 2012). This suggests that introverts are better communicators in the sense that they are able to convey information and knowledge in a more precise and efficient way, whereas extraverts may be better at brainstorming ideas with their spontaneous and quick communication style. Linguistically, introverts' concrete style of verbal expression is more likely to appear more trustworthy than abstract verbal expression, meaning that in addition to be more efficient, introverts' communication is inclined to be perceived as truthful (Beukeboom, Tanis, & Vermeulen, 2012).

In short, some aspects of introversion can be obstacles in tacit knowledge sharing through socialization, but introversion per se cannot be considered an obstacle as several aspects of introversion motivate and facilitate tacit knowledge sharing. Likewise, several aspects of the extraverted personality type are also positive when it comes to tacit knowledge sharing, especially extraverts' social skills. In other words, tacit knowledge sharing through socialization benefits from both extraverted and introverted personality traits.

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It is a complex problem that introverts do not perform at their best in social settings when tacit knowledge is best shared through socialization. However, being aware of employees' personality traits can help managers customize tacit knowledge sharing practices for both introverts and extraverts. Matzler et al. (2008) suggest that managers can put together teams based on the employees' personality traits. For example, introverts can be assigned to smaller teams, ideally groups of two or three people, to avoid the social issues introverts often experience which serve as an obstacle in the knowledge sharing process. Since introverts typically enjoy working in solitude and prefer to present their work to others first when it is completed, managers can allow introverts to spend more time working alone and give them time to prepare ideas before attending meeting and social activities.

### **Limitations and further research**

The methodology used in this paper may limit the truthfulness of the findings to some extent. First, this paper is based on the understanding of introversion/extraversion as a dichotomy, whereas in reality introversion/extraversion is a scale; most people fall into both categories.

Second, the reasoning, arguments, and conclusions in this paper are exclusively based on existing literature and the work of other scholars; no original research was carried out to test this paper's thesis statement. The accuracy of arguments presented in this paper is therefore highly dependent on the validity of the research and studies referred to.

Further research must be carried out to verify the findings of this paper. It would be interesting to see scholars from the fields of KM and psychology conduct a study that investigates the relation between tacit knowledge sharing and introversion, either through surveys, focus groups, and/or observational research. The next step would be to investigate which personality types best work together in terms of tacit knowledge sharing. For example, would an introverted person perform better in teams together with other introverts, extraverts, or both? Further research on this subject would provide managers with more knowledge on how to compose teams based on personality with the purpose of allowing for all team members to thrive, and thereby ensure efficient tacit knowledge sharing.

### **Conclusion**

The purpose of this paper was to investigate, through existing literature, whether or not introversion is an obstacle in tacit knowledge sharing through socialization. The thesis

statement was that introversion is an obstacle in tacit knowledge sharing through socialization. I approached this issue by first defining typical introverted personality traits and then comparing these traits to socio-psychological factors that have been proved to either inhibit or motivate tacit knowledge sharing. Through the comparison it became clear that some aspects of introversion inhibit tacit knowledge sharing through socialization, whereas other aspects serve as facilitators and motivators for knowledge sharing. Introverted traits that are obstacles include poor multitasking skills, withdrawnness, evaluation apprehension, and preference for written over verbal communication. On the other hand, introverts' openness to experience, tendency to feel intrinsic motivation, listening skills, concise verbal communication style, and ability to establish and maintain close emotional relationships (fostering trust and loyalty), all motivate and facilitate tacit knowledge sharing. Therefore, the conclusion is that introversion cannot be considered an obstacle in tacit knowledge sharing through socialization.

This research paper is based on a clear distinction between introversion and extraversion. It is important, however, to keep in mind that most people have both introverted and extraverted personality traits. Nevertheless, the distinction between introversion and extraversion can help managers familiarize themselves with their employees' personality traits and customize tacit knowledge sharing practices accordingly. Considering the importance of organizational knowledge (especially tacit knowledge) in today's knowledge-based economy, knowledge sharing constitutes a crucial factor in all organizations. Knowing what facilitates and inhibits effective tacit knowledge sharing enables organizations to improve and customize their tacit knowledge sharing practices to their unique assembly of employees.



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